

**NEDBANK GROUP LIMITED** 



PILLAR 3 RISK AND CAPITAL MANAGEMENT REPORT

FOR THE SIX MONTHS ENDED 30 JUNE 2018

Basel III Public Disclosure Report

see money differently

**NEDBANK** 



### **EXECUTIVE SUMMARY**

Nedbank Group's financial performance was underpinned by a robust balance sheet, with a strong capital, liquidity and funding position, as well as sound credit asset quality aided by the group's strategic portfolio tilt focus, an enabling but prudent risk appetite, and excellence in risk management.

This report complies with regulation 43 of the regulations relating to banks issued in terms of the Banks Act (Act No 94 of 1990) and the Basel Committee on Banking Supervision's (BCBS's) revised Pillar 3 disclosure requirements.

## **Highlights**

Defaulted advances as a % of gross advances

3,13%

(Jun 17: 2,80%) (Dec 17: 2,71%)

Trading book – low risk

R154,3m (Jun 17: R132,1m) (Dec 17: R146,8m)

IRRBB % ordinary shareholders'

equity 1,70%

(Jun 17: 1,74%) (Dec 17: 1,67%) Postwriteoff recoveries

R629m

(Jun 17: R578m) (Dec 17: R1 244m)

Credit loss ratio

**0,53%** 

(Jun 17: 0,47%) (Dec 17: 0,49%)

> Commonequity tier 1 12,4%

(Jun 17: 12,3%) (Dec 17: 12,6%) Total tier 1

Portfolio

coverage

0,91%

(Jun 17: 0,65%) (Dec 17: 0,70%)

**Specific** 

coverage

35,2%

(Jun 17: 37,2%) (Dec 17: 36,2%)

13,2%

(Jun 17: 13,2%) (Dec 17: 13,4%)

The Nedbank Group Chief Financial Officer (CFO) Raisibe Morathi, on behalf of the board, is satisfied that information provided in this report has been prepared in accordance with board-approved internal control processes and in accordance with the Nedbank Group Public Disclosure Policy, which can be accessed at nedbank.co.za.

Long-term funding ratio

28,4%

(Jun 17: 33,1%) (Dec 17: 27,0%)

Liquidity coverage ratio

106,9%

(Jun 17: 104,6%) (Dec 17: 116,2%)

Net stable funding ratio

116,4%

(Jun 17: >100%) (Dec 17: >100%)

Total capital adequacy ratio

15,6%

(Jun 17: 15,7%) (Dec 17: 15,5%)

Available financial resources: economic capital

136%

(Jun 17: 135%) (Dec 17: 136%)

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## Group structure and basis of Pillar 3 disclosure

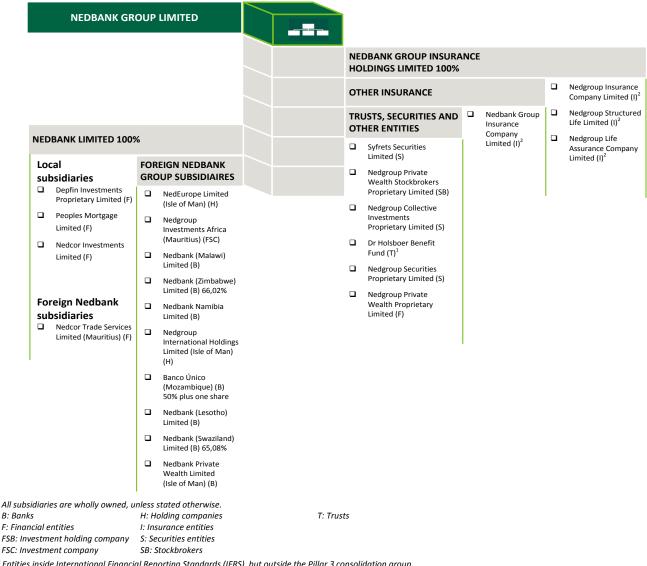
The group's comprehensive Pillar 3 and public disclosure complies with regulation 43 of the regulations relating to banks issued in terms of the Banks Act (Act No 94 of 1990). Set out below are the key subsidiary companies of Nedbank Group. Consistent with the principle of proportionality (or materiality) contained in the regulations, this Pillar 3 Report covers Nedbank Group Limited and Nedbank Limited. The other banking subsidiaries are not in themselves material enough to warrant individual Pillar 3 reporting.

Insurance risk is managed in terms of the Enterprisewide Risk Management Framework (ERMF), for which detail can be found on page 8. However, the insurance businesses are outside the scope of Pillar 3 consolidation, and investments in insurance entities are only included in the calculation of the group's capital adequacy ratio (CAR) through the application of the threshold deduction method, detail of which can be found on the next page. Implementation of the Solvency Assessment and Management (SAM) regime formally commenced on 1 July 2018. Nedbank Insurance have been steadily preparing for SAM and a vast amount of work and resources have been invested in the comprehensive SAM parallel runs that have been taking place for the past five years. This extensive preparation has positioned us well for the implementation and 'go-live' of the SAM requirements. An initial assessment of the relevant Financial Soundness Standards (SAM Pillar 1) indicates that we are currently compliant with the applicable financial standards, after taking into account proportionality for certain minor product lines.

In addition, the Rest of Africa (RoA) Cluster is included in the Pillar 3 Report through the group structure illustrated below. The risk management culture, governance structures, policies and processes for the group also apply to the African subsidiaries.

All subsidiary companies and legal entities are consolidated into the Nedbank Group Limited Internal Capital Adequacy Assessment Process (ICAAP) and Pillar 3 reporting as explained in the 'Consolidated supervision' subsection on the next page, again in compliance with the regulations.

The credit risk management process incorporates the review of the granting of financial assistance, funding in the normal course of business, investments and bank accounts across related companies. The Group Credit Committee (GCC) in particular reviews the governance in respect of intercompany loans granted by regulated entities. The GCC also receives reports from Group Financial Control to ensure compliance with the requirements of section 45 of the Companies Act (Act No 71 of 2008) in terms of financial assistance between related companies.



 $<sup>^{1}</sup>$  Entities inside International Financial Reporting Standards (IFRS), but outside the Pillar  $^{3}$  consolidation group.

<sup>&</sup>lt;sup>2</sup> Entities outside Pillar 3 consolidation

#### **Consolidated supervision**

There are some differences in the basis of consolidation for accounting and regulatory purposes. Accounting consolidation is based on IFRS, while the regulations relating to banks issued in terms of the Banks Act (Act No 94 of 1990) prescribe regulatory consolidation and list specific exclusions. These differences include the treatment of accounting reserves (eg the profits not formally appropriated by the board of directors by way of resolution to constitute retained earnings for group banking entities or the controlling company), as well as the investments in insurance entities, which are only included in the calculation of the group's CAR through the application of the threshold deduction method. Refer to the table 'Summary of regulatory qualifying capital and reserves' on page 39 for differences in the basis of consolidation for accounting and regulatory purposes.

The definition of capital includes the foreign currency translation reserves (FCTR), share-based payment (SBP) reserves, property revaluation (PR) reserves and available-for-sale (AFS) reserves as common-equity tier 1 (CET1) capital under Basel III.

#### SUMMARY OF THE TREATMENT FOLLOWED FOR BASEL III CONSOLIDATION

			Minority interest		Cont	rolling/Majority interest				
			20% an	d ≤ 50%	20% and	≤ 50%				
	Type of entity	≤ 20%	Other significant shareholder.	No other significant shareholder.	Aggregate of investment ≤ 10% of the banks or controlling company's CET1.	Aggregate of investment > 10% of the bank's or controlling company's CET1.	> 50%			
	Treat as equity investment. Apply 100% risk weight — The Standardised Approach (TSA) or 300%/400% risk weight [Internal Ratings-based (IRB) market-based — Simple Risk Weight Approach (SRWA)].  Treat as equity investment. Apply 100% risk weight — The Standardised Approach (TSA) or 300%/400% risk weight [Internal Ratings-based (IRB) market-based — Simple Risk Weight Approach (SRWA)].		Risk-weight at the appropriate risk weighting based on nature of holding of instrument and measurement approach.	Risk-weight at the appropriate risk weighting based on nature of holding of instrument and measurement approach up to 10% of the bank's or controlling company's CET1.  Deduct the amount in excess of 10% of CET1 against the corresponding component of capital.	Full consolidation OR apply the deduction method for financial entities with specific limitations.					
	Insurance entities				4 up to 10% of the bank's or controlling company's CET1 capital.  Access of 10% of CET1 against the corresponding component of capital.					
					Standardised Approach	Advanced Approach				
					Individual investment up to 15% of CET1. Additional tier 1 and tier 2 are to be risk-weighted at no less than 100%.	Individual investment up to 15% of Cl and tier 2 are to be risk-weighted in ac	ccordance with one of			
	Commercial entities	Treat as equity investment. Apply 100% risk weight (TSA) or 300%/400% risk weight (IRB market-based – SRWA).			Individual investment in excess of 15% of CET1. Additional tier 1 and tier 2 are to be risk-weighted at 1 250%.	the available equity risk approaches [Market SRWA or Internal Model, or probability of default (PD)/loss given default (LGD) approach].				
					Aggregate of investment in of excess 60% of CET1. Additional tier 1 and tier 2 exceeding 60% are to be risk-weighted at 1 250%.	Individual investment in excess of 155 tier 1 and tier 2 are to be risk-weight risk-weighted assets (RWA)	ted at 1 250% or the			

<sup>&</sup>lt;sup>1</sup> Includes regulated and unregulated entities.

<sup>&</sup>lt;sup>2</sup> Types of activity that financial entities may be involved in include financial leasing, issuing of credit cards, portfolio management, investment advisory, custodial and safekeeping services and other similar activities that are ancillary to the business of banking.

For Nedbank Group the following Basel III consolidation approaches are followed:

- The banking, securities and other financial entities are fully consolidated.
- The insurance entities are treated as set out on the previous page.
- All commercial entities are treated as set out on the previous page.

#### **Basel III RWA calculation approaches**

The following approaches have been adopted by Nedbank Group for the calculation of RWA.

#### **NEDBANK GROUP LIMITED**

		Nedbank Limited			Trusts and	
Risk type	Nedbank Limited (Solo)¹	Local subsidiaries	Foreign subsidiaries	Foreign subsidiaries	securities entities	Other insurance entities <sup>2</sup>
Credit risk	AIRB/TSA <sup>3</sup>	AIRB	AIRB	TSA	TSA	N/A
Counterparty credit risk (CCR)						
Exposure approach	CEM	N/A	CEM	CEM	N/A	N/A
Credit risk RWA	AIRB	N/A	AIRB	TSA	N/A	N/A
Credit valuation adjustment (CVA) risk RWA	SA	N/A	SA	SA	N/A	N/A
Securitisation risk	IRB	N/A	N/A	N/A	N/A	N/A
Market risk⁵	IMA	TSA	TSA	TSA	TSA	N/A
Equity risk	SRWA	SRWA	SRWA	SRWA	SRWA	N/A
Operational risk <sup>6</sup>	AMA/TSA	AMA	TSA	TSA	AMA	N/A
Other assets	AIRB	AIRB	TSA	TSA	TSA	N/A

<sup>1</sup> Approaches followed by Nedbank Limited (Solo) also apply to the Nedbank London branch. Nedbank Limited (Solo) is in line with the regulatory specifications for the bank entity.

<sup>&</sup>lt;sup>2</sup> In terms of regulation 36(7)(a)(iii) and 36(10)(c)(ii) of the regulations relating to banks issued in terms of the Banks Act (Act No 94 of 1990) investments in insurance entities are only included in the calculation of the group's CARs through the application of the threshold deduction method and risk-weighted at 250%.

<sup>&</sup>lt;sup>3</sup> The remaining portion of the legacy Imperial Bank book [ie in Nedbank Retail and Business Banking (RBB)] remains on TSA.

<sup>&</sup>lt;sup>4</sup> Current Exposure Method (CEM) is applicable for the London branch as well as Swaziland and Namibia.

 $<sup>^{5}</sup>$  The Internal Model Approach (IMA) portion is 94% and TSA portion is 6% in Nedbank Limited (Solo).

<sup>&</sup>lt;sup>6</sup> The Advanced Measurement Approach (AMA) coverage is 90% and TSA is 10%.

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

			Carrying values of items subject to:						
	Statement of	Regulatory		Counterparty			Equity risk		subject to capital requirements or subject to
June 2018	financial	consolidation	Credit Risk	Credit Risk	Securitisation	Market Risk	in the banking	Other	deduction
Rm	position	scope	Framework	Framework	Framework	Framework	book	assets <sup>1</sup>	from capital
Assets Cash and cash equivalents	11 222	11 009	5 370					5 639	
Other short-term securities	94 226	93 300	74 560			57 378		5 039	
Derivative financial instruments	28 058	28 058	74 300	24 827		26 695			
Government and other securities	76 730	76 729	76 485		464	39 243			
Loans and advances	712 668	712 524	700 492	12 032	404	35 243			
	23 441		700 492	12 032				22 501	
Other assets		22 501						22 501	
Current taxation assets	922	897	897						
Investment securities	20 837	7 196					7 052	144	
Non-current assets held for sale	382	382						382	
Investments in associate companies	3 103	3 103					27	3 076	
Deferred taxation assets	341	341	341						
Investment property									
Property and equipment	8 630	8 504						8 504	
Long-term employee benefit assets	4 675	4 675						3 648	1 027
Mandatory reserve deposits with central banks	21 596	21 596	21 596						
Intangible assets	12 184	12 171							12 156
Total assets	1 019 015	1 002 986	879 741	36 859	464	123 316	7 079	43 894	13 183
Liabilities									
Derivative financial instruments	25 394	25 394		25 179		24 198			
Amounts owed to depositors	801 165	801 744							
Provisions and other liabilities	25 638	23 683							
Current taxation liabilities	239	252							
Other liabilities held for sale									
Deferred taxation liabilities	765	690							28
Long-term employee benefit liabilities	2 812	2 812							
Investment contract liabilities	18 316								
Insurance contract liabilities	2 044								
Long-term debt instruments	53 680	53 680							
Total liabilities	930 053	908 255		25 179		24 198			28
Total equity	88 962	94 731							

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

		Items subject to:						
June 2018		Credit Risk	Securitisation	Counterparty Credit	Market Risk	Equity risk in the		
Rm	Total	Framework	Framework	Risk Framework	Framework	banking book	Other assets <sup>1</sup>	
Asset carrying value amount under scope of regulatory consolidation (as per template LI1)	1 002 986	879 741	464	36 859	123 316	7 079	43 894	
Liabilities carrying value amount under regulatory scope of consolidation (as per template LI1)	908 255			25 179	24 198			
Total net amount under regulatory scope of consolidation	94 731	879 741	464	11 680	99 118	7 079	43 894	
Off-balance-sheet amounts	204 914	198 169		6 745				
Differences in valuations	158 613	152 856		5 757				
Differences due to different netting rule other than those already included in row 2	(215 002)	(204 305)		(10 669)			(28)	
Differences due to consideration of provisions	(8 118)	(8 118)						
Differences due to prudential filters								
Exposure amounts considered for regulatory purposes	235 138	1 018 343	464	13 513	99 118	7 079	43 866	

<sup>&</sup>lt;sup>1</sup> Subject to other assets/risks not risk-weighted elsewhere.

## Risk governance and culture

Globally, the economic momentum has improved, with trade volumes expanding further in H1 2018. However, the global trade war is escalating between China and the USA, negatively impacting world trade and emerging markets. The rand weakened against the dollar by almost 13% in August 2018, the biggest monthly decline since September 2011, and emerging-market currencies remained under pressure. This trend has intensified, which could imply that the rand is likely to remain on the back foot over the near term, in line with emerging-market peers.

Statistics South Africa (Stats SA) announced that SA entered into a technical recession due to the gross domestic product (GDP) contracting by 0,7% in the second quarter of 2018, after contracting by 2,2% in the first quarter of 2018. The largest negative contributors to the GDP contraction were the agriculture (-29,2%), transport (-4,9%) and trade industries (-1,9%). The main positive contributors were mining, which has increased by 4,9%, and the finance, real estate and business services industry, which increased by 1,9%. The decrease in agriculture was largely driven by a decline in the production of field crops and horticultural products. Continued drought conditions in Western Cape and a severe hailstorm in Mpumalanga resulted in extensive crop damage and placed additional pressure on production in the second quarter.

Amid heightened SA political risk and policy uncertainty, the outlook for 2018 improved. There has been renewed optimism following the new African National Congress (ANC) and SA president, resulting in actions initiated against corruption and state capture. The new political leadership in SA, Zimbabwe and Angola have improved investor sentiment towards the region, but realisation of foreign direct investment (FDI) aspirations remains uncertain. While we have limited control over political and economic risks, Nedbank's proactive risk management practices seek to understand and prepare for the impacts of alternative outcomes on our business. Nedbank's risk appetite and provisioning are prudent and appropriately conservative, enabling our businesses and promoting competitive but sustainable growth and returns. Our strong risk culture, refreshed fit-for-purpose ERMF and extensive stress and scenario testing will place us in good stead. Extensive stress and scenario testing is done, and management is now focused on new opportunities amid the renewed optimism and considering upward adjustments to strategic portfolio tilt (SPT).

#### NEDBANK'S RESPONSE TO THE OPERATING ENVIRONMENT: C-SUITE RISKS

As a result of the volatile, uncertain, complex and ambiguous (VUCA) environment of accelerated change, internally and externally, the global economy is navigating the fourth industrial revolution, in which digital technology will integrate with our physical lives in unprecedented ways. Nedbank recognises that a more strategic approach to business and risk management is essential in such an environment, and is positioned to be at the forefront of this revolution.

In response to the rapidly changing environment, needs and expectations of our stakeholders, Nedbank's strategy has undergone various amendments, a major component being agility, incorporating Managed Evolution (ME) and Digital Fast Lane (DFL) as one of the strategic enablers to deliver 2020 targets.

DFL aims to simplify our technological landscape by positioning us to be more agile, innovative and responsive to our clients' changing needs.

DFL is the group's primary driving force behind it's 'disrupt through discovery' digital strategy theme, which is anchored in responding to client needs, both underserved and unmet. The result is a relentless pursuit of new-to-market experiences that fulfil those needs, leveraging new ways of working (nWoW), new technology and partnerships in collaboration with all stakeholders across the group and our Nedbank clients. Our philosophy of high velocity is best described as 'speed with direction', where our speed is enabled by the capabilities of the nWoW, cutting-edge automation tooling for responsible digital delivery in a risk-mitigated way that is competitively compliant and secure.

Risk management in Nedbank is aligned with Nedbank's DFL by adopting a two-pronged approach namely:

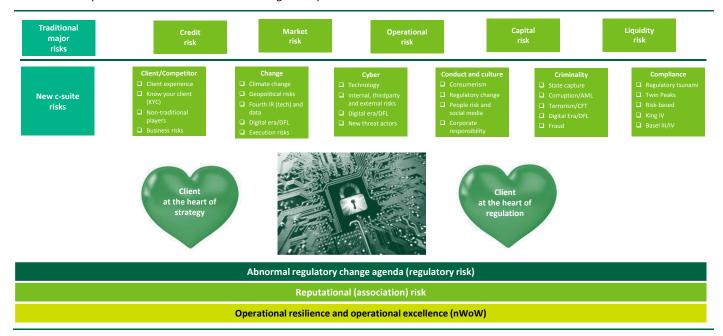
- the digitisation and optimisation of risk and compliance processes in the client environment, with a direct positive impact on the client's overall experience by meeting risk and compliance requirements in an efficient, automated manner; and
- digitisation within the risk, internal audit and compliance functions to ensure a more streamlined, smarter, agile, strategic and efficient approach to risk management practices that align and play a key role in the bank's transformation and reinvent strategy.

In support of this, the ME programme aims to deliver the digital evolution that will enable Nedbank to be more responsive to client needs through nWOW, Nedbank's revolutionary approach to the rapid commercialisation of step change innovation of the client experience.

The continued evolution of risk management in H1 2018, into smarter, practical, digitised and efficient practices has provided Nedbank with a relevant and competitive business advantage in an ever-shifting internal and external environment. Nedbank now adopts a much broader and more flexible approach to the management of risk, going well beyond the terms of reference prescribed by regulation, as reflected by our inclusion of the new C-suite risks as part of our risk management, demonstrating that we are strategically geared towards enhanced digitisation and agility in a way that aims to differentiate the group from its competitors.

#### VUCA is the 'new normal' and we continue to manage our traditional major risks and evolving the new c-suite of risks

As illustrated in the diagram below, Nedbank continues to assess, monitor and enhance the five traditional risks. To develop a sustainable competitive advantage in a VUCA environment Nedbank had to heighten the focus on the six c-suite risks included in the risk management framework and policies and to evolve these risk management practices.



Nedbank is committed to high standards of governance, ethics and integrity. We embrace worldclass banking practices and robust institutional frameworks to ensure our banking services are secure and stable. We are constantly reviewing these practices to ensure that we consistently act in the best interests of our stakeholders. Banks are expected to adapt to regulatory changes quickly, which means we have to entrench good governance practices, while retaining the flexibility to respond proactively to the fast-changing regulatory environment. Nedbank's corporate governance philosophy, approach, standards, policies and practices support achievement of each of the King IV principles and enable the board and management to conclude that we are currently achieving the King IV governance outcomes. We believe that good governance can contribute to living our values through enhanced accountability, strong risk and performance management, transparency and effective leadership. Our approach to risk and compliance management goes beyond simply meeting legislative requirements. Our practical and enabling risk culture ensures that spirit and intent are borne in mind, while valuing the integrity and importance of appropriate governance.

Risk management is ingrained in the Nedbank culture. Proactive and well-established risk management practices ensure that appropriate levels of capital and resources are allocated, with appropriate levels of focus. As risk managers our focus is shifting from a historical monitoring role to playing an enhanced strategic/advisory role, ensuring smarter business, balanced by appropriate governance and risk tolerance, which is in line with the bank's strategy to develop our skills, talent, culture and people practices.

Actively managing and updating our Key Issues Control Log (KICL) promotes a sound risk culture and facilitates timely identification and escalation of risks and issues to appropriate levels. Risk management across Nedbank remains dynamic through the escalation of risks and issues through our ERMF. Our ERMF remains robust, resilient and agile to respond appropriately to the current operating environment. However, Nedbank has realised that we cannot merely concentrate on those risks traditionally associated with the business of banking. Nedbank deems its risk management practices to be in good shape and also fully acknowledges the rapidly changing world and our need to be agile, smarter, and more effective, proactive and forward-looking, at the same time being appropriately responsive.

### Overview of Nedbank Group's Enterprisewide Risk Management Framework

Risk universe	Accounting financial and taxation risks	Credit risk 2	Operational risk	Financial crime risk	Liquidity and funding risk <sub>5</sub>	Capital risk	Insurance risk including non- banking risks		rket isk 8 Banking book	Concentration risk	Conduct risk	Regulatory risk	Information technology risk	Business and strategic (execution) risk	Reputational risk	Governance and compliance risk <sub>15</sub>	soci	ormation, al and mental risk	People risk <sup>17</sup>
										st line of defence (1	· ·								
										nagement (risk-tak									
			Focused and inforn	ned involvement b	y the board and	l group exco, ac	countability and respo	nsibility of busin	ess manageme		all supported by pard of Direct		nal control, risk ma	nagement and governa	nce structures and	processes.			
Board committees (A-H)	Group A	Audit Committe (GAC) 1   11		Large-exposures	edit Committee (GCC) Approval Committ (LEAC)	B 219111113 tee 219	Comm Including a	d Capital Managen ittee (GRCMC) d hoc GRCMC AML 314151617181		Group Information Tec	nnology Committee	Related-pa Co	erty Transactions mmittee (RPTC) 2 I 14	Directors' Affairs Com (DAC) 11   13	F Romittee R	Group emuneration Committe (Remco) 10   11   1		Group Transforma Social and Ethics Con (GTSEC)	
										Chief Executiv	e (CE)								
										Nedbank Group Ex	ecutive Commit	ttee (Exco)							
Group executive committees	Group A	Comi	utive Risk Managem mittee ip Alco)		Brand, Client a Conduct Commi (BCCC)			p Operational Committee (GORC)	CID		utive Information nology Committee (EITCO)			CID ime Committee (FCC)		p Reputational k Committee (GRRC)	G	Transformation and Resources Comm (TRAHRCO)	
										Group Operation	al Committees	(Opcom)							
Group executive committees and forums  Cluster Credit Committees (CCC)  Cluster Credit Committees Forum  Executive Taxation A Finance Forum  Forum  Forum  Forum  Forum  Forum  Forum  Forum  Mergers and Acquisitions A Nedbank Employee Equity G1H Forum  Forum  Forum  Forum						Compliance G	Transactiona Foru												
								Ente	erprisewide R	lisk Committees (EF	COs)								
Chief										Chief Opera	ting Officer (CC	00)							
Operating Office		Marketing, ( and Corpora (GMC)	Communication Ite Affairs CA)		Rest of Africa (Reents, Alliances a Subsidiaries	and Strategic	Balance S	heet Manageme (BSM) <sup>1</sup>	ent		an Resources HR) <sup>1</sup>		Group Teo (GT		Gro	up Strategic Plannin and Economics <sup>1</sup>	g	Group Finance	
Client-facing		Nedb	ank Corporate and	Investment Bank	ing (CIB)		Ne	dbank Retail and	d Business Ban	king (RBB)			Nedbanl	k Wealth			Rest	of Africa	
clusters			Business line managers Some central functions (Group R					oup Risk/BSM), e	eg Forensics, Legal	and Security Se	rvices.								
									Second line	e of defence (2nd L	DD: 2A and 2B)								
									Risk over	rsight, monitoring a	nd advisory								
						Group Risk								Group Enterpri	ise Governance ar	nd Compliance (EGC	)		
Group Risk and Complia	risk commi	ttees; interac		ness units; is respo			ent leadership, group e ERM and control, inc				independent (	compliance risk m	onitoring (of comp	cer (CGCO), who reports liance monitoring in the ompliance and governa	first line), sets the				
functions						CRO									cgco				
Second line of defence (group level: 2A)	Group Gredit Risk (GCR)	Group Risk Analytics (GRA)	Group Market Risk (GMR)	Group Operational Risk (GOR)	Group Strategic Risk (GSR) CISCO,	Data Management, Digitisation, Risk Governance	Group Financial Crime and Forensks (GFCF)	Group AML, CFT and Sanctions Office (GAML)	Group Conduct and Reputational Risk	Group Legal <sup>1</sup> Group Insurance	Banks Act and Regulatory Programmes	Group Money- laundering Reporting Officer	Compliance Services and	Oversight	Market Conduct	Ne dbank Editorial and Language Services	group	Secretariat	Ethics, Strategy and Operations
Client-facing		Nedba	ink Corporate and I	Investment Banki	ng (CIB)		Nedban	k Retail and Bus	siness Banking	(RBB)			Nedbank Wealth				Rest of Af	rica	
clusters					Cluster	r Executive Hea	d: Risk							Cluster Executi	ve Head: Governa	nce and Compliance			
Second line of defence (business level: 2B)					Busin	ness unit risk of	ficers							Busir	ness unit compliar	ce officers			
(business level: 2b)										Other statutory-/re	gulatory-appointe	d officers							
									Third and	fourth lines of defe	•	th LOD)							
Independent assurance																			
Third line of defence	,									•	nternal Audit								

 $<sup>^{\,\,1}</sup>$  These functions undertake a combination of first and second line-of-defence roles.

#### Risk strategy and appetite

#### **RISK STRATEGY**

Nedbank undergoes a comprehensive and robust annual three-year strategy planning process. The risk strategy is fundamental to this process, with risk informing and influencing the formulation, implementation and execution of Nedbank's strategy.

Nedbank's top 10 risks (and the responsive changes thereto), as well as our risk appetite, are integral to the strategy and planning process.

A major component of Nedbank's 2020 vision and strategy is the concept of being more agile. As such, the strategy of Nedbank has undergone various amendments in response to the shifting environment, with risk management also strategically gearing toward enhanced agility.

The risk strategy has been prepared on the basis of transforming risk management strategically across Nedbank to differentiate it from our competitors. The most fundamental aspect of the risk strategy is strategically leveraging the regulatory environment, and building towards a winning regulatory environment in 2020. To this end our Regulatory Change Programme (RCP) is well established, with updates on programmes tracked at monthly Operational Committee (OPCOM), Group Executive Committee (Group Exco), Group Risk and Capital Management Committee (GRCMC) and board meetings.

The RCP adopts a business-led approach that creates a competitive advantage, as seen and experienced by roleplayers, through the introduction of new systems, processes and practices, as well as mindset and behavioural changes.

#### RISK APPETITE

Risk appetite has always been an articulation and allocation of the risk tolerance or quantum of risk we are willing to accept in pursuit of our strategy, and is duly set, approved and monitored by the board and integrated into our business and risk plans.

Nedbank has, over many years, cultivated a strong risk culture and embedded a prudent and conservative risk appetite, focused on the basics and core activities of banking and other financial services. A comprehensive Risk Appetite Framework (RAF) has been in place since 2006, and risk appetite metrics have been cascaded down to all our businesses.

The RAF has served the group well over the years and continues to support our underlying businesses, ensuring that the risk profile is known and assessed against established risk appetite targets and limits.

However, over the past few years it has become necessary to refresh the framework in line with those of peers as well as best practice, and to identify key areas of enhancement such as addressing non-financial risk types [eg financial crime, anti-money-laundering (AML), cyber-and reputational risks]. A set of key, predominantly qualitative, risk appetite expressions has been developed and is currently being refined. Further work on other, less material, non-financial risks is currently underway.

All core risk appetite metrics are currently tracking within appetite limits and are forecast to stay within our stated risk appetite through to 2020.

While prudent and appropriately conservative, our risk appetite is enabling our businesses, as well as promoting competitive but sustainable growth and returns.

#### Top 10 risks

In addition to Nedbank's risk universe, the top 10 risks across the enterprise have been identified, which Nedbank actively manages and monitors, reprioritising focus and resources appropriately.

The updated top 10 risks for 2018 are depicted as follows:

Ned	Nedbank's top 10 risks			
1	Strategic and execution risks (unprecedented level of change, client/competitor including data/data driven intelligence, managed separation and ME/DFL)	<b>↓</b> (SA)	↑(G/EM)	
2	Cyberrisk (Fourth industrial/digital revolution and DFL)	<b>^</b>		
3	Business risk (SA country/state capture/SA politics, VUCA global markets, client/competitor, climate and geopolitical risks)	$\downarrow$		
4	Operational risk (including IT, digital/nWoW, data, third-party/vendor, financial crime and people/talent risks)	<b>↑</b>		
5	Conduct and culture risks (Twin Peaks, consumerism, social media and corporate responsibility)	<b>^</b>		
6	Credit risk (asset growth pressure, state capture/SOEs)	<b>^</b>		
7	Reputational (and association) risk	$\downarrow$		
8	Regulatory and compliance risks (abnormal regulatory change agenda, including AML, EDP/RDARR, MCCP, POPI/Privacy)	$\downarrow$		
9	Market risk (VUCA macro and markets, integration of conduct/reputational risks and culture/people focus)	$\rightarrow$		
10	Balance sheet risks (concentration, capital, funding and liquidity risks)	$\rightarrow$		

- ↓ Improving
- Stable.
- Increasing

#### STRATEGIC AND EXECUTION RISKS (Top 10 risk: #1)

The geopolitical and economic environment was cited under the introduction of the 'Risk governance and culture' section. The unprecedented level of change in the operating environment, coupled with the plethora of new and amended regulatory requirements, has given rise to a number of large and complex projects/programmes – which are initiatives, often with extraordinary tight timelines, in addition to business-as-usual (BaU) responsibilities. This naturally introduces a higher level of execution risk for the organisation.

The focus on execution risk stemmed from the 2015 ERMF refresh, and was further elevated during 2017 through the embedding of a Strategic and Execution Risk Framework. The Group Operational Risk Committee (GORC) tracks and monitors execution risks across all major initiatives enterprisewide.

Three major programmes in the form of ME, DLF and the Target Operating Model (TOM) review further aim to reduce enterprisewide execution risk.

#### CYBERRISK (Top 10 risk: #2)

The group understands the increase in financial crime due to the challenging macro and political environments and the complexity of increasing digital activity. Heightened cyberrisks/exposure and information security risks are exacerbated by the digital revolution, and the group has a very low risk appetite for security incidents on its external systems, data or 'crown jewels'. Nedbank's most important cyberrisks includes loss of money and client data (at Nedbank or a third party) as well as bringing the systems down so that transactions cannot be processed.

The rapidly changing technological, digital and cyber landscapes, with heightened cyberrisk exposure, have prompted a radically elevated focus from Nedbank's cyberrisk management, led by the Chief Risk Officer (CRO) and the Chief Information Officer (CIO), to fast-track Nedbank from cybersecurity to cyberresilience. The cyberrisk environment is dynamic and fast-changing and we continuously pivot the portfolio of work.

Cyberrisk is listed as a Nedbank top 10 risk, and is continuously receiving the required focus by the board and the Nedbank security community to address known and newly identified gaps through various initiatives. The exposure to cyberrisk is increasing with greater interconnectedness in the banking ecosystem, rapid adoption of new technologies [eg cloud computing, application programming interfaces (APIs), robotic process automation (RPA) and blockchain]. Client expectations and preferences, Nedbank's digital strategy, DFL initiatives, ME execution as well as nWoW will further increase our exposure to cyberrisk and the demand for cyberrisk management to be incorporated into these strategic initiatives.

There is continued implementation of the various components of the Cyberresilience Risk Management Framework to improve Nedbank's cyberresilience. Several cyberworkstreams were incorporated in a Cyberresilience Programme, including independent red-team/blue-team testing, enhancement of cybersecurity awareness among employees, enhanced protection of 'crown jewels', improved threat modelling, etc. We continue to improve controls for identity and access management (IAM) and governance through the ME Enterprise Security Foundation Programme. The programme includes access governance and privileged-access management projects as well as the creation of an access governance centre of excellence addressing, inter alia, cyber-related risks.

New initiatives are added as and when threats are identified, or as the cyberrisk environment changes. The bank's external security (internet footprint), which was recently independently measured by a reputable third party, is at an advanced level of maturity. Nedbank's response to cybersecurity incidents and vulnerabilities, identified by the bank's Computer Security Incident Response Team (CSIRT), remains timeous and successful, with minimal impact to the bank. Nedbank has specific cybersecurity-related insurance lines or cover, as discussed in the 'Operational risk' section.

#### BUSINESS RISK (Top 10 risk: #3)

Considering the adverse, abnormal and uncertain political and economic landscape in SA, business risk remains in the top three of Nedbank's top 10 risks. Client activity and associated revenue growth are slower in the current operating environment. The organisation is, however, well prepared for this, having been managed prudently and conservatively since the global financial crisis in 2008. Nedbank's focus on cost containment, the implementation of the SPT (selective origination) strategy and the further strengthening in the credit risk management space are paying off in the current environment.

The impact and speed of geopolitical risk in the current operating environment should not be underestimated, with the local political dynamics in 2017 serving as example. To this end extensive work has been done since late 2015 on 'management's response (preparation) for SA's sovereign-rating downgrade(s)', which will place us in good stead, despite the sovereign-rating downgrades in 2017.

Our business planning process is sufficiently mature and advanced to respond to the adverse environment, and the updated 2019–2021 plans include a heightened focus on discretionary spend.

## OPERATIONAL RISK (INCLUDING IT, DIGITAL/NWOW, DATA, THIRD-PARTY/VENDOR, FINANCIAL CRIME AND PEOPLE/TALENT RISKS) (Top 10 risk: #4)

Operational risk remains appropriately managed within board-approved appetite limits on a net basis. The inherent operational risk profile remains high across Nedbank due to geopolitical global and local SA risks, unprecedented levels of change, abnormal regulatory pressures, and macroeconomic and social shifts. The exposure to operational risk is further heightened by the pressure to manage costs, and grow revenue and improve efficiencies.

Risk management of core IT processes and data governance is in place, with key risk indicators (KRI's) used to identify, manage, measure and report risk proactively. All known control deficiencies are highlighted and escalated to relevant ERMF committees. There is continuing benefit from the ongoing maturity of key foundation and enabling programmes that are delivering the supporting capabilities required in go-to-market solutions.

In line with Nedbank's ME systems rollout currently underway as well as our DFL strategy, and given the vast number of changes being introduced, an increased level of IT disruption and impact to systems availability is anticipated. This is being addressed by our Group Technology (GT) Cluster and we continue to invest in strengthening our people, systems, policies, processes and related controls to ensure that they are robust and that sufficient measures are in place to minimise any impact and recover timeously from any major incidents.

Corporate insurance is a key component of a bank's risk management strategy and in this regard Nedbank successfully renewed its 2017/2018 groupwide insurance programme, substantially increasing cover for cybercrime particularly in line with local and global trends.

Legal risk remains well contained and managed, despite the adverse external environment and heightened reputational risk.

#### Financial crime

#### Fraud and corruption risk management

Nedbank recognises financial crime as a major operational risk that has the potential to result in significant losses. In recognition of the ever-present and ever-growing threat posed by financial crime to the financial services industry, Nedbank elevated the risk of financial crime to a key risk in the Nedbank risk universe and embarked on a process to integrate the management of financial-crime risk. In support of these initiatives an executive committee, the Financial Crime Committee (FCC), was established. Financial-crime risk includes cybercrime, fraud, corruption, violent crime, AML and sanctions. The group takes a proactive and vigorous approach to managing and mitigating this risk in all its forms and has a zero-tolerance stance against fraud and corruption, and any other form of dishonesty on the part of its employees.

#### Violent crime

Due to the current political uncertainty and economic environment, violent crime targeting the financial sector continues to increase. Nedbank has a very mature environment and have deployed significant industry-leading technology and physical security measures over time to combat this increase. Group Security Services has deployed remote visual verification of alarms received by its inhouse monitoring centre, as well as the ability to open and close branches remotely, thus reducing the risk to employees and resulting in a reduction in cash losses. The visitor enrolment and visitor hosting policy and processes deployed at the end of 2017 continue to reduce the risk of unauthorised access to campus sites.

Security conformance testing and awareness sessions are conducted nationally at branches and campus sites to address common themes in violent crime and non-conformance. Focus is on high-risk branches due to a limited number of robberies suffered by Nedbank during the past 18 months.

#### AML, CFT and sanctions

AML, CFT and sanctions resources continue to be bolstered at the centre as well as in business clusters to monitor and enhance controls, with support across the ERMF and specific focus at a board level, and with a dedicated AML, CFT and Sanctions Group Risk and Capital Management Committee.

Nedbank has met the deadline for the SA remediation, with 30 of the 30 findings being completed by management and independent assurance done on all 30 findings, which has been communicated to the South African Reserve Bank: Prudential Authority (SARB: PA).

AML remediation and control enhancements continue to receive focus in the RoA subsidiaries, with the remediation programme driven by the RCP and centrally managed by Group AML, CFT and Sanctions. Both Nedbank Malawi and Lesotho have met their 30 June 2018 and 31 July 2018 regulator timelines respectively.

While good progress has been made, especially in SA and RoA, remediation with the goAML Remediation Programme has been and continues to be challenging. The due date of 30 November 2018 has been committed to the FIC for the completion of the prioritised Consolidated Reconciliation Project, which is being managed through an agile approach. Phase two of the project relates to international funds transfer reporting (IFTR), due on 1 April 2019, which forms part of an independent work stream to ensure a state of readiness is achieved by the due date.

Comprehensive BaU assessments have been completed, with management actions to close gaps. During H1 2018 there was an 11% improvement on identified control gaps relating to AML, CFT and sanctions across Nedbank Group. A key focus for Q3 2018 is the RBB 95% new-to-bank assessment as well as driving the 'Go to Green' risk status across the RoA subsidiaries.

Progress continues to be made with expected challenges on the transition to a 'Risk-based Approach' (from the current 'Rules-based Approach'), evolution of risk management and implementation of the FIC Amendment Act by 2 April 2019 to fully implement material organisation change and GT dependency (ME and Enterprisewide Client Onboarding), while adopting the nWoW and agile approach to assist with meeting tight regulatory timelines.

#### CONDUCT AND CULTURE RISKS (Top 10 risk: #5)

In view of a general unease about corruption and the increase in corporate scandals/poor behaviour, new regulations will see the introduction of strict and far-reaching market conduct requirements which, together with strict codes of corporate governance (with high ethical standards as cornerstone) and a heightened awareness by the public of the ethical and conduct requirements of banks, will result in even more intense and intrusive scrutiny by regulators [Twin Peaks – The Financial Sector Regulatory Act (FSRA)].

SA has not been exempt from the global shift in increasing consumer protection legislation. In the SA context, Treating Customers Fairly (TCF) has evolved and is now treated as a market conduct risk with the advent of the Market Conduct Framework for SA (Twin Peaks).

Nedbank holds itself to high ethical values, for all of its stakeholders and as such rates conduct and culture risk as a Top 10 risk, beyond just compliance requirements.

Management is focused on further enhancing the integration of conduct and reputational risks, and the appropriate associated culture, with other risks (eg credit and market risks) and the related business and governance processes (eg lesson learnt from Transnet/Regiments internal investigation).

Nedbank has been proactive and started the execution of a Market Conduct and Culture Programme (MCCP) based on international best practice conduct standards, which is progressing well. As part of MCCP, a Conduct Risk Management Framework, Policy and Operating Model will be finalised. A detailed conduct risk assessment across Nedbank Group will identify conduct risk intrinsic in our strategies, business models and processes, along with associated controls and metrics to mitigate any potential conduct risks.

Nedbank recognises that conduct risk has the potential to result in significant losses and the group has planned to take a proactive and vigorous approach to managing and mitigating this risk in all its forms.

In addition, Nedbank has taken a proactive approach to draw learnings from the external environment, namely the Prudential Inquiry (the Panel) into the Commonwealth Bank of Australia (CBA). The inquiry findings provide valuable insights and lessons to be learnt. Nedbank is in the process of considering these within the SA context in terms of governance, accountability and culture in general, as well as risk and compliance management specifically.

Nedbank Group's Market Conduct demonstrates our client-centred commitment to be 'money experts who do good', which means that we will at all times adhere to the highest standards of ethical conduct and best market practice to ensure that our clients and stakeholders receive fair treatment appropriate financial services, and have a positive experience when they interact with us.

#### CREDIT RISK (Top 10 risk: #6)

Nedbank Group's credit portfolio and key credit metrics are proving resilient in the unfavourable macroeconomic and political environment, illustrating the success of the strategic portfolio tilt, proactive credit risk management and conservative provisioning.

This is evident in Nedbank Group's credit loss ratio (CLR), which increased 6 bps to 0,53% at 30 June 2018 following increases in defaults in the CIB portfolio and the implementation of IFRS 9. This increased the coverage of new business, mostly in retail portfolios, including impairments on off-balance-sheet exposures. This was partially offset by the change in the treatment of suspended interest under IFRS 9, which structurally lowers the CLR of home loans and personal loans and lowers the corresponding interest margin. The low CLR continues to reflect selective advances growth and the high quality of the portfolio across all our businesses, and is below our target range of 0,6–1,0%.

Prudent watch list management in our investment banking portfolio and effective resolution of most wholesale key watch list clients added to Nedbank's effective credit risk management.

Credit process and governance across the bank remain efficiently and effectively managed, within an enabling risk appetite.

Nedbank's Advanced Internal Ratings-based (AIRB) credit system remains in good shape. Credit-risk-weighted assets (RWA) subject to the AIRB Approach increased from R318,4bn to R332,2bn at 30 June 2018, primarily due to portfolio growth in RBB, the implementation of Basel model updates in the vehicle asset finance portfolio and the downgrade of a specific counter in the wholesale portfolio, which is appropriately secured and monitored.

#### REPUTATIONAL (AND ASSOCIATION) RISK (Top 10 risk: #7)

The reputation of the Nedbank Group is a priority of the Group Chief Executive (CE), the Group Executive Committee (Exco) and the board. It is the group's view that, through proper planning, reputational risk can be identified, prioritised, mitigated, managed and minimised.

With the allegations of state capture, among other matters, the focus on the financial industry in general increased dramatically, which heightened reputational risk. Nedbank has actively managed a number of high-risk reputational matters over the course of the year through its Group Reputational Risk Committee (GRRC).

The scope of the GRRC is to consider, decide upon and oversee material reputational risks to the group and any associated risks or issues that may potentially or actually pose a material reputational risk. The scope of the GRRC extends without limitation to material reputational risks arising from, or connected with, all categories, types and classes of risk.

High-risk committees (HRCs) in the client-facing business clusters (RBB, Wealth and CIB, Group Finance: Procurement and RoA) have been established and/or enhanced. HRCs are responsible for to developing standards by which reputational matters are to be considered by them as they possess the necessary knowledge of the clients, suppliers, deals, and transactions. HRCs escalate matters to the GRRC for decision, discussion, noting or ratification.

The number and severity of reputational matters have translated into additional focus on, and resources being deployed in, the fraud, forensics and legal environments. Group Financial Crime and Forensic Services (GFCF) and Group AML, CFT and Sanctions (Group AML) play active roles in, inter alia, investigating matters of concern from a reputational risk and business risk point of view and provide invaluable input and advice to the GRRC, from the perspective of their respective fields of expertise. Both GFCF and Group AML are represented at the GRRC as invitees, give input submissions tabled at the GRRC where applicable, and participate in deliberations. Group Legal provides legal support to the GRRC.

The Executive Head: Strategic Communications provides input and insight from a media perspective. Participation in the GRRC by Group Legal, GFCF and Group AML ensures a holistic approach to reputational risk mitigation, which is aligned to applicable legislation, regulations and the group's internal procedures.

Under the support of the GRRC, GFCF was tasked to investigate the risk of exposure of the group in light of allegations associated with state capture. These investigations were extended to cover subsequent related events, including allegations contained in the Gupta email leaks. The GRRC has deliberated extensively on the findings of GFCF, with input and recommendations from the relevant HRC, Group AML and Group Legal parties and concluded that the route of risk-mitigating decisions which included the termination of certain client relationships.

Given the focus on reputational issues through a robust governance process, forums and committees that manage and monitor reputational risk, as well as the focus of senior management and the board, the group is confident that its reputation remains sound.

#### **REGULATORY AND COMPLIANCE RISKS (Top 10 risk: #8)**

The pervasive, abnormal regulatory change agenda continues unabated with banks subject to additional scrutiny by regulators, and a plethora of new and amended regulations dominating time and resources. The cost of implementation of the changing regulations is also high.

Nedbank's strategic response to the high execution risk and regulatory change agenda comprises a comprehensive RCP under the leadership of the CRO, which has required a significant budget of R3,2bn.

The RCP is facilitating the evolution from short-term to long-term sustainable solutions, with regulatory risks being managed through various steering committees, RCPs, exco and board committees. Nedbank's RCP seeks to leverage off compliance requirements as a competitive differentiator, maximising the benefits of the spirit of what is intended by the regulation.

Key programmes currently underway include:

- An operating model review (TOM) that seeks to ensure client-centredness (single view of a client), as well as an 'enterprise view' of a client.
- ME (systems and data), focusing on enterprise client onboarding and Know Your Client (KYC).
- Enterprise Data Programme (EDP), an advanced data analytics/data-driven intelligence programme placing Nedbank in a competitively advantageous position by using data analytics and intelligence.
- A risk management/risk-based approach instead of a historical pure-compliance-based approach.

#### Key focus areas:

- AML, CFT and sanctions (refer to 'financial-crime' subsection).
- The IFRS 9 programme progressed well and to be closed out by end 2018.
- The EDP/RDARR [Basel Committee on Banking Supervision (BCBS) 239] project.
- POPI: Privacy initiative has been formalised under an implementation programme called the Lighthouse Privacy Programme (LPP). The LPP is planning to implement all 10 privacy principles and close the Privacy Programme by end 2018.
- Basel III, which has been substantially implemented.
- In terms of market conduct and culture, we developed with the assistance of E&Y, a leading practice Blueprint, Diagnostic and Gap Analysis, as well as a high-level implementation road map and commenced phase two in Q1 2018.
- FSRA, which became effective on 1 April 2018 and gives effect to SA Twin Peaks regulatory structure a high-level plan has been drafted for Nedbank's response to the FSRA and in particular for conglomerated supervision.

Regulatory relationships, which include regulators in SA and all the countries in which Nedbank has representation, are well managed and stable. Regular engagements take place and regulators are apprised on an ongoing basis, particularly where action plans are in place to meet agreed timelines (eg AML).

#### MARKET RISK (Top 10 risk: #9)

Market risk and all its subrisk components remain well managed and monitored, with favourable outcomes and largely within risk limits. Markets in H1 2018 were characterised by the ANC elective conference, Viceroy-triggered equity volatility, the ANC land reform plan and rand volatility caused by both local and international dynamics.

Work is continuing on the Basel III minimum capital requirements for market risk, although the SARB: PA has deferred the implementation date to 1 January 2022. A gap analysis on Nedbank's key business requirements, specifications and understanding of the proposed regulation has been completed and used to update the business requirements and project timelines.

The Markets Conduct Risk Technical Forum established in 2017 aims to analyse, assess and identify conduct-related matters pertaining specifically to the trading portfolio. The forum has continued to refine and enhance existing processes and controls. Conduct risk training sessions, which included the CRO and international consultants focusing on conduct and reputational risk best practice, were held for all traders.

The SARB: PA has endorsed the Bank for International Settlements (BIS) FX Global Code and from 1 September 2018 expects its counterparties in the FX market to adhere to the Global Code and to demonstrate their commitment by publishing their own statements of commitment in support of the integrity, effectiveness and efficiency of the domestic FX market. Nedbank has compiled a risk assessment against the 31 principles to assess Nedbank's readiness for the code and to identify any gaps that may have to be addressed.

#### BALANCE SHEET RISKS (Top 10 risk: #10)

Nedbank Group's CET1 ratio declined to 12,4% due to the full impact of the implementation of IFRS 9 and IFRS 15, further investment in software development as part of the group's ME programme and the payment of the 2017 final dividend in April 2018, which offset, to a degree, organic earnings generated and the positive impact following the weakening of the rand against the US dollar during the period.

- This was further impacted by:
  - ☐ Credit RWA growth, primarily due to portfolio growth in RBB, the implementation of Basel model updates in the vehicle asset finance portfolio and the downgrade of a specific counter in the wholesale portfolio, which is appropriately secured and closely monitored.
  - Trading market RWA growth due to an increase in exposures.
  - Other assets RWA growth due to balance sheet movement, offset by a decrease in threshold RWA, as a result of a reduction in the value of the associate investment in ETI.

The group's tier 1 CAR of 13,2% was adversely impacted by further grandfathering of preference shares in January 2018, in line with the Basel III transitional arrangements.

The group's total CAR of 15,6% was positively impacted by the issuance of tier 2 capital of R2,0bn in March 2018, in line with the group's capital plan.

Optimising our funding profile and maintaining a strong liquidity position remain a priority for the group, especially in the current environment. The group's quarterly average liquidity coverage ratio (LCR) of 106,9% exceeded the minimum regulatory requirement of 90% effective from 1 January 2018. The group maintains appropriate operational buffers designed to absorb seasonal and cyclical volatility in the LCR.

Nedbank exceeded the minimum net stable funding ratio (NSFR) regulatory requirement of 100% effective from 1 January 2018 with a June 2018 ratio of 116,4%. The key focus in terms of the NSFR is to achieve ongoing compliance in the context of balance sheet optimisation.

At June 2018 the net interest income (NII) sensitivity of the group's banking book for a 1% parallel reduction in interest rates, measured over 12 months, is 1,70% of total group ordinary shareholders' equity (OSE), which is within the board's approved risk limit of < 2,25%. This exposes the group to a decrease in NII of approximately R1 399m before tax should interest rates decrease by 1%, measured over a 12-month period.

Interest rate risk in the banking book (IRRBB) is actively managed through a combination of on- and off-balance-sheet strategies, including hedging activities. Hedging is typically transacted on a portfolio basis for deposits and retail advances, even though larger, longer-dated deposits along with wholesale fixed-rate advances are typically individually hedged.

Balance Sheet Management (BSM) provides strategic direction, insight and motivation in managing IRRBB to Group Alco and Executive Risk Committee (Group Alco) through appropriate risk reporting and analytics and by providing strategic input based on the committee's interest rate views, impairment sensitivity and defined risk appetite.

#### **Rest of Africa**

Notwithstanding RoA grappling with many challenges (scale, finalising core banking implementation, growing profitability, adverse macro environments, controls, intensifying regulatory and compliance issues), it was the leading contributor to the group's earnings growth in this period. This was driven largely by the turnaround in profitability in Ecobank Transnational Incorporated (ETI), which recorded a swing of R1,3bn from the R1,1bn loss in H1 2017 to the profit of R245m in H1 2018. Nedbank also increased its representation on the ETI board and/or board subcommittees with Mfundo Nkuhlu, the Chief Operating Officer (COO), newly appointed as Chair of the Risk Committee and now complemented by Brian Kennedy, Managing Executive for CIB, who has joined the board as well as Audit and Remuneration Committees.

In addition, the Southern African Development Community (SADC) and East Africa businesses grew earnings by 58,6% to R111m, return on equity (ROE) increased to 7,6% and average gross banking advances were up 3,7% in an environment of subdued economic growth, with excess liquidity invested in sovereign assets.

The strategy of growth in RoA has the potential to increase the risk profile of the organisation, especially in markets with commensurate higher returns but which are more volatile and require appropriate and a 'fit for purpose' governance and control approach. The 2018–2020 Group Business Plan includes steps to manage strategic and correlated risks in the RoA strategy.

While positive for the businesses, the rollout of a new core banking system (Flexcube) has increased levels of operational risk in the short term. Flexcube is now running successfully in Namibia, Swaziland, Lesotho, Malawi and Zimbabwe (went live in March 2018). There have been no major Flexcube-related loss incidents since the implementation in Malawi, being the fourth subsidiary to have received its replacement prior to Zimbabwe. There is a noticeable trend of system stability since implementation, notwithstanding issues needing attention and resolution.

In all RoA subsidiaries regulatory scrutiny by both incountry regulators and SARB: PA has intensified, especially in relation to AML.

The Go-to-Green initiative is a key intervention led by the Group CRO, the cluster's Managing Executive and Executive Head of Risk, aimed at alleviating some of the risk pressure as well as to facilitate an improved internal control environment within the SADC subsidiaries. In addition, a revised risk approach is being piloted to ensure reduced administration and optimisation of resources having regard to the scale of operations.

#### Focus in 2018

The key risk management and compliance focus in 2018 continues to be informed by Nedbank's top 10 risks, implementing and advancing the RCP with key deliverables, including AML, IFRS 9 (close-out), EDP/RDARR, market conduct and culture, Basel III, RoA operations (including ETI), the traditional suite of risks and the new 'c-suite' of risks discussed earlier.

In particular, Nedbank's CRO has a comprehensive 2018 Risk Plan, approved by the board, differentiating between 'running the bank' (transactional) and 'changing the bank' (transformational and reinventing) as follows:

- Running the bank transactional (BaU).
  - Top 10 risks (see previous pages).
  - Maintaining a sound risk management environment and position, with enhanced independent assurance.
  - □ Worldclass risk management across Nedbank Group through effective risk management and optimisation of its risk profile.
  - More focus on emerging risks/forward-looking (geopolitical and macroeconomic).
  - More scenario analysis/stress testing/deep dives.
  - Evolving the coordinated assurance across the group.
- Changing the bank transformational and reinvent.
  - RCP.
  - ☐ Group Internal Audit refresh/transformation (execution in 2018, following the new blueprint and TOM developed in 2017).
  - □ Digitising risk management, compliance (RegTech) and internal audit.
  - □ Completing evolution of integrated financial-crime risk management, and build of a Risk Intelligence Centre, specifically for cyberrisk and AML.
  - Nedbank Group (risk focus areas).
    - TOM review and nWoW.
    - ME (IT) and DFL.
    - Lead/Culture 2020, and risk culture implications.
    - Managed separation (Old Mutual).
    - RoA subsidiaries (including new Group Operating Manual) and ETI.

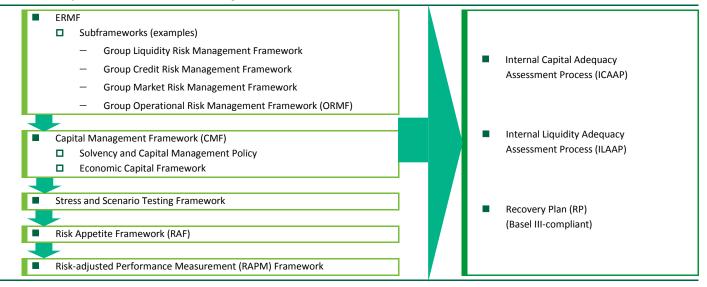
The overall state of Nedbank's governance, risk, internal control, regulatory compliance and balance sheet profile remains good, despite the outlandish 2017/2018 external macro and political environments, increasing risks, the abnormal regulatory change agenda and the unprecedented level of change.

This is vital for the organisation, as it provides an enabling platform and positive atmosphere for our businesses to flourish, to focus on the unprecedented level of change and delivery required in 2018, and to take advantage of the renewed optimism in SA and the opportunities that present, with a view to meeting our aspirational financial targets for 2020 on a sustainable basis and within board-approved risk appetite.

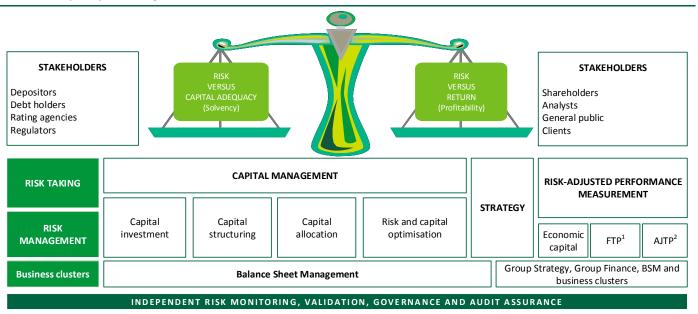
#### Approach to risk and balance sheet management

We approach our strategy development, business activities, risk appetite, risk and balance sheet management in a fully integrated manner. At the heart of the group's business and management processes are integrated worldclass risk and balance sheet management frameworks.

#### Nedbank Group's risk and balance sheet management frameworks



#### **Nedbank Group's Capital Management Framework**



<sup>&</sup>lt;sup>1</sup> Funds transfer pricing.

Nedbank Group's CMF is designed to meet our key external stakeholders' needs, both those focused more on the adequacy of the group's capital in relation to its risk profile (or risk versus solvency) and those focused more on the return or profitability of the group relative to the risk assumed (or risk versus return). The challenge for management and the board is to achieve an optimal balance between these two important dimensions.

All Nedbank Group's quantifiable risks across the 17 key risks of the ERMF are also captured in our Economic Capital Framework, where they are appropriately quantified and capitalised.

Economic capital is a sophisticated, consistent measurement and comparison of risk across business units, risk types and individual products or transactions, enabling a focus on both downside risk (risk protection), upside potential (earnings growth) and shareholder value-add.

Nedbank Group assesses the internal requirements for capital using its proprietary economic capital methodology, which models and assigns economic capital within 12 quantifiable risk categories. Nedbank Group regularly enhances its economic capital methodology and benchmarks the output to external reference points.

All of these quantifiable risks, as measured by the higher of regulatory or economic capital, are then allocated back to the businesses in the form of a capital allocation to where the assets or risk positions reside or originate.

<sup>&</sup>lt;sup>2</sup> Activity-justified transfer pricing.

Economic capital is embedded in the organisation and the way the business is managed. This is summarised below.

#### **Economic capital use across Nedbank Group**

Economic capital adequacy Concentration risk management Risk-based capital allocation across the Risk diversification group's businesses GROUP PORTFOLIO Risk portfolio management and Key component of risk appetite optimisation Active capital management and ICAAP Limit setting Effective reporting of risk (Pillar 3) Portfolio tilt Strategic and capital planning Risk/return economic value appraisal of Risk-based pricing different business units and monolines Consideration of economic return on TRANSACTION Economic profit (EP) target setting individual loan applications and products Risk-based strategic planning Client value management Risk appetite optimisation

The Nedbank Group's economic capital and ICAAP methodology is constantly reviewed and updated, taking cognisance of regulatory developments such as Basel III and Solvency II/SAM.

Economic capital not only facilitates a like-for-like measurement and comparison of risk across businesses but, by incorporating the allocation of the higher of economic or regulatory capital into performance measurement, the performance of each business can be measured and compared on an absolute basis by using EP and a relative percentage return basis, namely return on risk-adjusted capital (RORAC) – the same as ROE, by comparing these measures against the group's cost of capital.

Economic profit is Nedbank's primary financial performance metric as it aligns closest with shareholder value creation and incorporates risk (through capital allocation)



EP is a combination of familiar metrics that enables tradeoff between:

risk and return;

**ICAAP** 

- growth and profitability; and
- shareholder value creation.

Currently EP and RORAC are used interchangeably as the primary measure for performance within Nedbank Group. In the calculation of RORAC, which equates to Nedbank Group's internal measure of ROE, the capital is calculated on a risk-adjusted basis. However, the return is not risk-adjusted as IFRS earnings are used. This is shown in the table below.

#### 

- Value is created if EP > 0.
- EP is a core metric for shareholder value-add.
- If capital is unconstrained, all business with EP > 0 should be grown subject to established hurdle ranges.
- No information on the marginal percentage return on economic capital, which is provided by RORAC.

#### RORAC = HE ÷ ALLOCATED CAPITAL

- Value is created if RORAC > hurdle rate.
- If capital is scarce, businesses with the highest RORAC (ie highest marginal return per rand of economic capital) should be prioritised.
- No information on magnitude of value being created for shareholders, which is provided by EP.

Prioritisation of utilisation of client limits

In line with Basel III and the Banks Act (Act No 94 of 1990), a best-practice ICAAP is embedded in Nedbank Group. It is an integral component of the group's ERMF, CMF (see diagram on previous page), strategy and business planning process, balance sheet management, remuneration and reward mechanisms, day-to-day business operations, pricing and lending decisions, and client value management. Nedbank Group scores highly on the 'use test', because the group's risk culture is based on the understanding that the business of banking is fundamentally about managing risk, and risk drives capital and liquidity requirements, against which return is measured and rewarded.

#### LIQUIDITY RISK MANAGEMENT FRAMEWORK

Embedded within the Liquidity Risk Management Framework is Nedbank Group's ILAAP. The ILAAP involves an ongoing and rigorous assessment of Nedbank Group's liquidity self-sufficiency under a continuum of stress liquidity scenarios, taking into consideration the board-approved risk appetite. The ILAAP also involves an ongoing review and assessment of all components that collectively make up and/or support the Liquidity Risk Management Framework. The objective of this review and assessment is to ensure that the framework remains sound in terms of measuring, monitoring, managing and mitigating liquidity risk, taking cognisance of best-practice and regulatory developments. Further detail regarding the framework is provided in the 'Liquidity risk and funding' section.

In view of the significance of liquidity risk in banking, the ILAAP is conducted from both a group and bank perspective.

#### **RECOVERY PLAN AND STRESS TESTING**

The Nedbank RP establishes a framework for the bank to act quickly and decisively (eg selling businesses and significant assets) during a severe crisis to ensure that it is able to recover. The plan describes integration with existing contingency planning and possible recovery options, including a detailed assessment of their likely effectiveness and the defined points at which they would be invoked. The RP addresses stresses invoked by shortfalls in liquidity and capital, as well as significant operational failures that may jeopardise Nedbank's ability to continue normal business operations. The RP also covers the various options considered by senior management to mitigate stresses encountered by Nedbank. The RP fits into and aligns with Nedbank's ERMF and complements the existing capital, liquidity and stress and scenario testing policies and procedures of the group.

SARB: PA released its resolution white paper titled Strengthening SA's Resolution Framework for Financial Institutions in August 2015 and in January 2018 released a first draft of the Resolution Framework. Nedbank RPs are being appropriately enhanced as and when details are provided in terms of the Resolution Framework, which is expected to be finalised and possibly enacted in late 2018. Further information is provided in the 'Recovery Plan overview' section.

Nedbank Group has a comprehensive Stress and Scenario Testing Framework, which is used, among others, to stress its base-case projections to assess the adequacy of Nedbank Group's capital levels, capital buffers and target ratios. The framework has been in place, and continuously enhanced, since 2006 and is an integral part of the group's ICAAP under Basel III, strategy and business plans. Further information is provided in the 'Stress and scenario testing' section.

#### **RISK APPETITE FRAMEWORK**

A comprehensive RAF was first approved by the board of directors in 2006 and has recently undergone a significant enhancement. It continues to be an integral component of the group's ERMF and is embedded in the group's strategy and business plans. Further detail is discussed in the 'Risk appetite' section.

#### RISK-ADJUSTED PERFORMANCE MEASUREMENT, MANAGEMENT AND REWARD

Economic capital, EP and RORAC as well as other important metrics, such as return on assets (ROA), CLR, non-interest revenue (NIR) to expenses and the efficiency ratio, are included in performance scorecards across the group. Economic capital and EP are comprehensively in use across the group, embedded in businesses on a day-to-day basis and in performance measurement and reward schemes. RAPM has been applied across the group for many years and helps ensure that excessive risk-taking is mitigated and managed appropriately within the group.

To align the group's current short-term incentive (STI) scheme with shareholder value drivers, the STI scheme has been designed to incentivise a combination of profitable returns, risk and growth appropriately. It is driven from an EP and headline earnings basis, using the higher of risk-based economic and regulatory capital allocation. Risk is therefore an integral component of capital allocation and performance measurement (and reward) in Nedbank.

The group's remuneration practices and public disclosures are compliant with the evolving principles, practices and governance codes released for the SA financial services industry. For this detail please refer to the group's 2017 Remuneration Report and the 'Remuneration' section in the 2017 Integrated Report, which can be found at nedbank.co.za. Nedbank Group continues to monitor the evolving governance environment to ensure appropriate compliance of the group's risk-adjusted remuneration practices with the relevant regulatory and/or statutory requirements.

#### Conclusion

Nedbank's risk and balance sheet profile across the enterprise remains resilient despite, among others, the challenging external environment, recent sovereign-rating downgrades, increasing risks and increased regulatory change agenda.

Our robust ERMF and our strong risk culture have supported Nedbank's overall positive risk state to date. Further to this, and in response to the constantly changing risk environment, Nedbank now adopts a much broader and more flexible approach to the management of risk, going well beyond the terms of reference prescribed by regulation, as reflected by our inclusion of the new C-suite risks as part of our risk management. Nedbank deems its risk management practices to be in good shape, and also fully acknowledges the rapidly changing world and our need to be agile, smarter and more effective, proactive and forward-looking, at the same time being appropriately responsive.

Effective risk management across Nedbank is supported by and enhanced through the ERMF governance structures and the efficient functioning of enterprisewide risk committees (ERCOs). Matters requiring escalation are reported on in the KICL and are communicated through the business-specific excos, OPCOM, the monthly CEO pack, Group Exco, board committees and the full board of directors. The KICL reporting process promotes a robust risk culture and facilitates timely identification and escalation of all material risks (including forward-looking) and issues (risks already materialised) to the appropriate levels.

Our proactive risk culture ensures that risks are considered in advance and appropriate levels of capital and resources are allocated in the event of the risk materialising. One such example is the extensive work done on management's response (preparation) for the SA sovereign-rating downgrade(s), which has put us in good stead to navigate through the current VUCA environment.

Nedbank has embedded a prudent and conservative risk appetite focused on the basics and core activities of banking and other financial services. Risk appetite remains enabling for our businesses, promoting competitive but appropriate growth and returns. All core risk appetite metrics are currently tracking within approved net limits and are forecast to remain so over the planning period.

Risk management in Nedbank continues to be a fundamental component of the bank's strategy and operations, and continues to evolve into more agile, smarter, practical and efficient practices that remain relevant and competitive in an ever-shifting internal and external environment.

## Risk appetite

Risk appetite is an articulation and allocation of the risk capacity or quantum of risk Nedbank Group is willing to accept in pursuit of its strategy, duly set and monitored by Nedbank Group Exco and the board, and integrated into our strategy, business, risk and capital plans. Nedbank Group measures and expresses risk appetite both qualitatively and in terms of quantitative risk metrics.

The Risk Appetite Framework (RAF) continues to be an integral part of the group's risk management and oversight responsibilities, ensuring that the risk profile is assessed against a variety of defined quantitative risk appetite metrics that span material risk types in the group's risk universe. The profile is reported quarterly to senior management and the board. The reporting includes breaches observed in specific targets, the underlying drivers of the breach and any planned actions to bring the profile back into risk appetite or motivation for the condonement of the breach.

Nedbank's concentration risk management has been embedded as part of the bank's RAF. Additional concentration risk appetite targets have been set for areas in Nedbank with exposures having similar risk characteristics, which reduces the level of diversification, and that can have a material financial impact on the bank under adverse scenarios. The targets are reviewed and approved by senior management and the board annually as part of the three-year strategic business planning process in line with the Basel III regulations and the board's responsibilities. Further detail is contained in the 'Concentration and off-balance-sheet risks' section.

Qualitatively, the group also expresses risk appetite in terms of policies, processes, procedures, statements and controls meant to limit risks that may or may not be quantifiable. Policies, processes and procedures relating to governance, effective risk management, adequate capital and internal control have board and senior management oversight and are governed by Nedbank's lines of defence. A key component of the ERMF is a comprehensive set of board-approved risk policies and procedures that are updated annually. The coordination and maintenance of this formal process rests with the head of ERM, who reports directly to the CRO.

Nedbank's Risk Appetite Framework has served the group well over the years and continues to support our underlying businesses, ensuring that the risk profile is known and assessed against established risk appetite targets and limits.

The key components of our Risk Appetite Framework include:

- An overarching Risk Appetite Statement (RAS) for the group, which forms the basis for setting both quantitative and qualitative risk appetite targets for the various risk types and business units across the group.
- Risk appetite statements for key non-financial risks that have been evolving over recent years.
- Quantitative risk appetite metrics that are managed on a tiered basis to ensure senior management's focus on the key aspects of Nedbank's risk appetite.

These changes are described in more detail below.

#### **Overarching Risk Appetite Statement**

Nedbank Group's board of directors endorsed the following fundamental principles for the bank's risk appetite:

- Nedbank Group is a diversified financial services provider committed to its corporate purpose to use our financial expertise to do good for individuals, families, businesses and society. Our vision to be the most admired financial services provider in Africa by our staff, clients, shareholders, regulators and communities means that we hold ourselves to the highest standards of governance and ethics.
- We acknowledge that the financial performance of banks and therefore Nedbank Group is closely correlated to the macroeconomic environment in which they operate and as such earnings are of a cyclical nature.
- Our clients are at the heart of our strategy, and we strive to deliver innovative market-leading client experiences integrated with sound risk management and regulatory compliance.
- The business of banking fundamentally involves the management of risk and the group and its subsidiaries will always strive to be 'worldclass at managing risk' with a strong risk culture and robust ERMF.
- We are committed to creating sustainable value through a thorough understanding of the needs of all our stakeholders, understanding material risks to which the group is exposed, as well as the opportunities that can be pursued.
- Our risk appetite spans key overarching dimensions defined by the board against which all risk appetite measures and statements developed within the group must adhere to:
  - □ The group's capital adequacy must be maintained/preserved at all times to ensure that the group is able to withstand adverse impact from unexpected outcomes.
  - ☐ The group must maintain adequate liquidity ratios and buffers to successfully navigate the group through a liquidity stress event.
  - □ The strength of Nedbank's balance sheet must be demonstrated by the quality of underlying assets, which must be managed and monitored against approved risk appetite.
  - □ The group strives to achieve its desired performance through defining specific financial and other performance targets aimed at delivering value to all our stakeholders, and its earnings, liquidity and capital should enable resilience to stressed macroeconomic and abnormal events.

- □ The group enters into transactions or positions where the risks and opportunities are well understood. These same positions and transactions must be core to the group's achieving its strategic objectives, and any ancillary activities or opportunities should generally be avoided
- □ The board sets and approves targets and limits for concentration risk across key dimensions, which align with our strategic focus areas, and these risks must be well understood and managed within the risk appetite.
- □ The group has a low risk appetite for trading activities that profit from the market (proprietary trading) and mainly enters into market transactions to facilitate client trades and to help create liquidity in the market.
- □ Nedbank has a moderate risk appetite for investment into the RoA, understanding that, while there are significant opportunities, there are also significant risks. This position is to ensure participation in a risk-mitigated manner, in the long-term growth opportunities for financial services in Africa, while serving our clients and being aligned with our stated risk appetite.
- □ With financial services and specifically banking being built on a foundation of trust, it is imperative that the Nedbank brand and reputation is protected at all times. Nedbank is committed to the highest standards of governance, ethics and integrity, and it is thus the expectation of the board that all business decisions are made in line with this commitment.
- □ Nedbank has a zero tolerance for corruption and we expect all our staff, service providers and clients to conduct themselves in an ethical manner and with integrity.
- As the group develops innovative solutions, products and services, due care must be taken to ensure that our clients' experience is enhanced while ensuring that our clients, their financial data and their information assets entrusted with us are protected at all times.
- □ The group understands the increase in financial crime due to the challenging macro and political environments and the complexity of increasing digital activity. Heightened cyberrisks/exposure and information security risks are exacerbated by the digital revolution and the group has a very low risk appetite for security incidents on its external systems, data or crown jewels as defined.

#### Increased risk appetite coverage for key non-financial risks

With the increased importance of non-financial risks such as cyber, AML or fraud/corruption for modern banking, Nedbank identified the need also to account adequately for these in its RAF. A set of key, predominantly qualitative, risk appetite expressions has been implemented. Further work on other, less material non-financial risks has been planned for 2018.

#### Tiered risk appetite metrics

The previous RAF distinguished between a set of core versus non-core quantitative risk appetite metrics. This resulted in a very large number of 60+ metrics being subject to direct oversight by the board, which was found to be inappropriate and not sustainable. Hence, a more tiered segmentation of risk appetite metrics was introduced in 2017:

- The tiered approach sets appropriate key risk appetite metrics to be approved and overseen by the board, while allocating oversight of other key metrics to the varying levels of senior management within the group, with ongoing oversight and coordination by Group Risk.
- The tiered approach distinguishes ownership and oversight responsibilities, with tier 1 metrics complementing the aforementioned new overarching risk appetite statement.
- The intention behind the tiered risk appetite approach is to ensure that the board focuses on key material risk appetite metrics that holistically capture the group's risk profile and provide essential indicators of deterioration in the desired risk profile, but does not compromise the board's ultimate responsibility.
- The balance of the metrics are not lost, but monitored, managed and approved at senior management levels, with Group Risk oversight.
  - Any breaches in targets are required to be reported to the next tier above (eg a breach at a cluster level will be reported at both cluster committee level and at Nedbank Group Exco).

Nedbank Group's tier 1 risk appetite metrics are defined in the table on the next page.

#### **NEDBANK GROUP TIER 1 RISK APPETITE METRICS**

Group metrics	Definition	Measurement methodology	Current target	Target achieved a June 2018
<b>Credit risk</b> CLR	Level of actual credit losses in Nedbank Group's credit portfolios.	Measured as the ratio of the annual income statement impairments charge and average gross loans and advances.	0,6–1,0%	<b>v</b> 1
Capital and earning	s risk			
Chance of experiencing a loss	Event in which Nedbank Group experiences an annual loss.	Compares expected profit over the next year with economic loss at different confidence intervals – expressed as a 1-in-N-chance event of experiencing a loss.	Better than 1-in-15 years	•
Chance of regulatory insolvency	Event in which losses would result in Nedbank Group being undercapitalised relative to the minimum total regulatory capital ratio.	Compares the capital buffer above minimum required regulatory capital with economic loss at different confidence intervals – expressed as a 1-in-N-chance event of regulatory insolvency.	Better than 1-in-50 years	<b>,</b>
EaR	Percentage pretax earnings potentially lost over a one-year period.	Measured as a ratio of earnings volatility as a 1-in-10-chance event (ie 90% confidence level) and pretax earnings.	EaR less than 80%	~
Economic capital adequacy	Nedbank Group adequately capitalised on an economic basis to its current international foreign currency target debt rating.	Measured by the ratio of available financial resources (AFR) and required economic capital at an 'A' international foreign currency debt rating.	Greater than an 'A' rating plus 30% buffer.	•
Total RWA to total assets	The average risk profile (risk weight) of Nedbank Group's assets.	Measured as the ratio of total RWA to total assets.	50–59%	•
CET1 ratio	Nedbank Group adequately capitalised from a regulatory perspective.	Measured as the ratio of CET1 capital to total RWA.	10,5–12,5%	•
Leverage ratio (Basel III)	The extent to which Nedbank Group is leveraged in terms of assets, including off-balance-sheet assets, per unit of qualifying tier 1 regulatory capital.	Measured as the ratio of total assets, including off-balance-sheet assets, to qualifying tier 1 regulatory capital (aligns with Basel III).	Less than 20 times	V
<b>Liquidity risk</b> Liquidity stress event – regulatory	Survival period in a stressed liquidity event based on regulatory assumptions.	Number of days that Nedbank would be able to meet all payment requirements under a predefined stress scenario based on regulatory prescribed assumptions.	> 30 days	v
LCR	The extent to which high-quality liquid assets (HQLA) cover total net cash outflows (NCOF) over a 30-day period.	Measured as the ratio of HQLA to total NCOF over the next 30 calendar days. The ratio is based on Nedbank Limited's balance sheet, as a high level of liquid assets in foreign subsidiaries typically yields higher ratios at Nedbank Group level.	> 100%	v
Liquidity stress event – internal	Survival period in a stressed liquidity event based on internal assumptions.	Number of days that Nedbank would be able to meet all payment requirements under a predefined stress scenario based on internal models.	> 38 days	V
NSFR	Assessment of whether there is sufficient stable funding (equity, deposits, long-term wholesale) for the bank's lending profile (higher requirements for long-term assets).	Measured as the ratio of available to required stable funding (RSF).	>106%	~
Interest rate risk				
NII sensitivity	Sensitivity of Nedbank Group's NII due to changes in market interest rates.	Measured as the ratio of the 1-year NII impact of a 100 bps instantaneous parallel shift in interest rates and Nedbank Group's equity.	< 2,25%	v
Economic value of equity (EVE) sensitivity	Materiality of unhedged fixed-rate assets versus liabilities.	Measured as the ratio of the change in present value of fixed-rate assets versus liabilities due to a 100 bps instantaneous parallel shift in interest rates to Nedbank Limited's equity.	< 1,5%	•
Mark-to-market (MtM) sensitivity	Sensitivity of the fair value of the liquid asset portfolio to structural changes in	Measured as the change in fair value of the liquid-asset portfolio due to a 25 bps shift	< R160m	<b>~</b>

 $<sup>^1</sup>$  The group CLR remained below its TTC target range of 0,6–1,0% as the group continues to originate selectively in line with portfolio tilt strategic objectives.

Group metrics	Definition	Measurement methodology	Current target	Target achieved at June 2018
Market risk				
Trading VaR	Potential market value losses in the trading book over a three-day period (only to be exceeded once every 100 days).	Measured as the maximum three-day value at risk (VaR) (at a 99% confidence level) of the last 60 trading days.	< R150m	•
Stress trigger	Potential trading book loss during periods of extreme volatility.	Measured as the maximum scenario-based trading loss of the last 60 trading days.	< R1 050m	•
Insurance risk				
Capital at risk	Regulatory view of capital adequacy.	Ratio of net asset value (insurance view of available capital) to minimum regulatory capital for Nedbank's insurance entity.	> 1,5	•
Economic capital ratio	Internal view of capital adequacy.	Ratio of net asset value to economic capital (internal view of risk profile) for Nedbank's insurance entity.	> 1,0	•
Operational risk				
Operational risk losses	Level of actual financial losses due to operational risk events (eg fraud) in relation to the total operating income.	Measured as the ratio of operational-risk-related losses to Nedbank Group's gross operating income (GOI).	< 1,75%	•
Operational VaR	Level of losses due to operational risk events that Nedbank is not willing to exceed in an extreme scenario.	Measured as the ratio of the operational risk VaR (at a 99,93% confidence level) to Nedbank Group's GOI.	< 10%	×

An update of the scenarios used in the operational risk value-at-risk model resulted in gross losses slightly exceeding the corresponding risk appetite target, but remains within risk appetite on a net basis. A review of this target is underway which will incorporate both gross and net aspects.

Nedbank Group's risk appetite continues to be assessed following material changes within the operating environment, including the recent sovereign downgrade and elevated financial-crime risks among other material matters. The current and forward views of the group's risk profile under the changing base case as well as scenario and stress testing inform decisions to adjust risk appetite and/or to change the risk profile if required. The current RAF as defined continues to remain prudent and conservative, focusing on the group's core activities. This is illustrated by reference to the following:

- Credit concentration risk levels remaining within risk appetite.
  - □ Large individual or single-name exposure risk is low as shown on page 112.
  - The high contribution from loans and advances originated in SA (92%) is a direct consequence of Nedbank's strong footprint in the domestic banking market. As Nedbank has strong retail and wholesale operations in SA, in line with its universal bank business model, there is no undue concentration risk from a geographic perspective.
  - ☐ Industry exposure risk is reasonably well diversified as shown on page 114.
  - □ Nedbank Group's concentration in total mortgage exposure increased from 43,1% in December 2017 to 43,3% in June 2018, with the increase mainly from the commercial-mortgages book in line with growth plans. This level of total mortgage exposure remains high, though still in line with the other big three SA banks.
- Low level of securitisation exposure at approximately 0,1% of total RWA.
- Low leverage ratio under Basel III, which includes off-balance-sheet exposure, at 14,9 times against a group internal target of less than 20 times, and well below the Basel III limit, in accordance with the revised SA regulations of 25 times, which is more prudent than Basel III at 33,3 times.
- The group's CLR having increased to 0,53% (December 2017: 0,49%), driven by increased defaults in the CIB portfolio and the implementation of IFRS 9, as well as the inclusion of off-balance-sheet exposures. This was partially offset by the change in the treatment of suspended interest under IFRS 9, which structurally lowers the CLR of both Home Loans and Personal Loans and lowers the corresponding interest rate margin. The group CLR remained below its TTC target range of 0,6–1,0% as the group continues to originate selectively in line with portfolio tilt strategic objectives.
- Trading market risk remaining low in relation to total bank operations (economic capital held is only 0,4% of the minimum economic capital requirement for Nedbank Group and is conservatively based on limits rather than utilisation). Trading activities continue to focus on the domestic market with a bias towards local interest rate and forex products, with a low risk appetite for proprietary trading. Although proprietary trading activities remain low, they play an essential role in facilitating client trades and creating liquidity in the market.
- Comprehensive stress and scenario testing performed during the period confirms the adequacy and robustness of the group's CARs and accompanying capital buffers.
- Individual risk appetite targets, as relevant to the approved business activities, having been approved and cascaded down from group level for each business cluster and major business unit. Additionally, individual limits for CLRs in a stressed macroeconomic environment have been approved and cascaded down.

In conclusion, Nedbank's risk appetite continues to support the group and is well formalised, managed and monitored, bearing in mind the board's ultimate approval and oversight.

## Stress and scenario testing

Nedbank Group has a comprehensive Stress and Scenario Testing Framework that is used, inter alia, to stress its base-case projections in order to assess the adequacy of Nedbank Group's and Nedbank Limited's capital levels, buffers and target ratios. The framework is an integral part of the group's ICAAP under Basel III, strategy and business planning. By adhering to this framework Nedbank is ultimately able to conclude whether Nedbank's capital planning and base-case projected regulatory and economic capital levels, ratios, targets and buffers, including the results and impacts of the stress and scenario testing applied, are sound and appropriate.

Nedbank's holistic groupwide stress testing is at the forefront of similar processes at international banks. Stress testing is a component of Nedbank's aspiration to be 'worldclass at managing risk', and it is an evolving process, incorporating latest international methodologies and standards. Stress testing is also an important tool for analysing Nedbank Group's risk profile and setting risk appetite.

#### **Nedbank Group's Stress and Scenario Testing Framework**

The key features of the Stress and Scenario Testing Framework are as follows:

- A holistic view of Nedbank Group and Nedbank Limited is considered.
- The Pillar 2 stress testing model allows for quick turnaround times, what-if analysis and analysis on the impact of management actions.
- Event type or risk type stress tests are further designed to probe for portfolio-specific weaknesses. For example, Nedbank has significant exposure to the commercial property sector, and therefore a possible specific stress test event would incorporate all risk factors affecting this sector, including obligor-specific, industry and macroeconomic factors.
- Senior management has active knowledge of, and where appropriate, involvement in the design of stress test scenarios, and in drawing up contingency plans for remedial action. Such participation helps to ensure that any remedial actions based on contingency plans drawn up in response to approved stress tests will be implemented.
- Market risk stressing is performed daily and utilises a full portfolio revaluation technique.
- Extensive liquidity stress testing and scenario analysis are performed, at both a bank and industry level, in order to determine appropriately the bank's liquidity profile, including the sizing of the liquidity buffer portfolio in the most optimal manner for seasonal, cyclical and/or stress events.
- Pillar 1 stress testing is performed by each business unit and is approved by the respective business unit or cluster credit committees.

#### Stress frequency and scenarios

The overall Pillar 2 stress test results and effects on regulatory capital, economic capital, available capital resources and therefore CARs are reported to the Group Alco and the board's GRCMC on a regular basis (at least quarterly). The forward-looking capability of the stress testing model ensures that management action can be taken in advance when necessary.

In addition to the quarterly stress testing process, a comprehensive set of relevant scenarios is also considered and presented during the annual ICAAP. The following was considered in finalising the proposed scenarios for the 2018 ICAAP:

- The stress scenarios should represent a continuum of macroeconomic scenarios of varying degrees and sufficient stress severities.
- Relevant current global and local economic and political environment specific portfolio stresses, specific risk-type stresses and specific event-type scenarios should be considered.
- The scenarios should address Nedbank-specific concentrations and focus areas.
- The concerns of the SARB: PA as published in the SARB: PA Financial Stability Review (first edition 2018, page 25) should be incorporated. A number of key scenarios regarding potential threats to financial stability were identified in the review.

Scenarios that were considered for the 2018 ICAAP included:

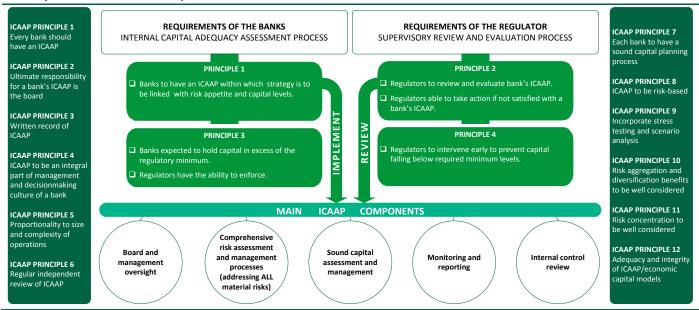
- Macroeconomic scenarios of different severities, ranging from a positive stress to mild, high, severe inflationary and severe deflationary stress scenarios.
- Specific high-concentration-risk stresses, such as Nedbank's exposure to the commercial-property and motor vehicle finance sectors.
- Specific risk-type stresses, such as CVA shocks and liquidity risk stress testing.
- Specific event-type scenarios, such as a sudden operational risk loss event in the form of a cyberattack, the drought in the Western Cape and further deterioration in the stability of state-owned enterprises (SOEs).
- Reverse stress testing.
- Benchmarking to relevant international stress scenarios such as the Bank of England, European Banking Authority and US Federal Reserve stress testing exercises.

Results included the effects on the major income statement items and consequently earnings on regulatory capital, economic capital, available capital resources and therefore CARs. Nedbank's stress testing strategy, the severity of the stressed macroeconomic scenarios and the additional stress scenarios were challenged, debated and discussed at executive management level by the Group Alco and at non-executive management level by the GRCMC before being finalised for the annual ICAAP submission to the SARB: PA.

## Internal Capital Adequacy Assessment Process overview

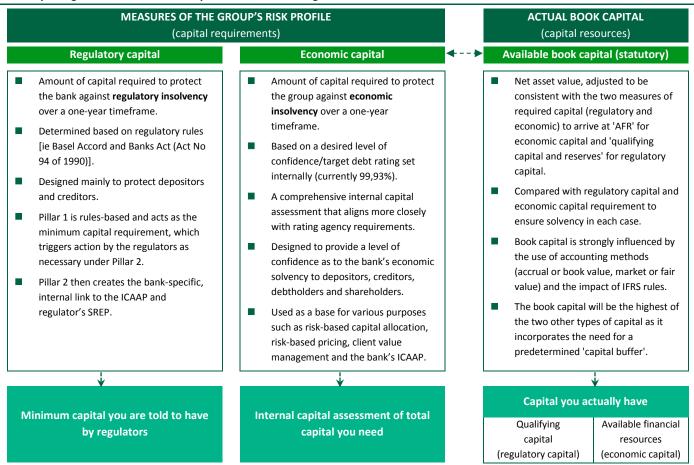
A summary of the four key principles contained in Pillar 2 of Basel III, regulation 39 of the regulations relating to banks issued in terms of the Banks Act (Act No 94 of 1990) (including guidance provided by SARB: PA in Guidance Note 4 of 2015), the ICAAP requirements of banks and related Supervisory Review and Evaluation Process (SREP) requirements of the SARB: PA are depicted below.

#### Summary of the ICAAP and SREP requirements



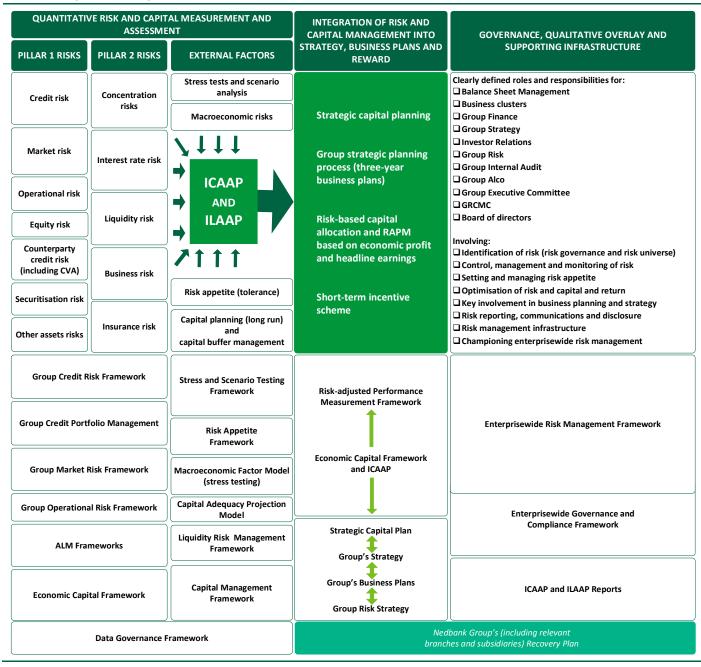
The ICAAP is primarily concerned with Nedbank's comprehensive approach, measurement and management of risk and capital from an internal perspective that is over and above the minimum regulatory rules and requirements of Basel III. To this end it is important to highlight that Nedbank Group has several levels of capital and other components, as depicted in the table below, to be measured and managed simultaneously.

#### Summary background to the different capital levels to be managed



A separate ICAAP is required for each material banking legal entity and for the consolidated Nedbank Group. Size and materiality play a major role in the extent of each bank's ICAAP. Nedbank Group's ICAAP is embedded within the group's CMF and a blueprint thereof (see below) sets out the ICAAP building blocks and overall process, and the various frameworks underpinning this. This process is repeated regularly, which facilitates the continuous assessment, management and monitoring of Nedbank Group's capital adequacy in relation to its risk profile.

#### Nedbank Group's ICAAP blueprint



The foundations of Nedbank Group's ICAAP, CMF and ERMF are a strong and rigorous governance structure and process, as discussed earlier. The ERMF is actively maintained, updated and regularly reported on up to board level, coordinated by the ERMF Division in Group Risk. This same governance process is followed for Nedbank Group and each banking legal entity ICAAP and involves key participants from the business, finance, risk, capital management and internal-audit areas, as well as the relevant executive committees, board committees and the board.

Further detail of the group's capital management is covered from page 32.

The ultimate responsibility for the ICAAP rests with the board of directors. The risk and capital management responsibilities of the board and Nedbank Group Exco are incorporated in their respective terms of reference (charters) contained in the ERMF. They are assisted in this regard, and in overseeing the group's capital risk (defined in the ERMF), by the board's GRCMC and the Group Alco respectively. Group Alco, in turn, is assisted by the BSM Cluster.

## **Recovery Plan overview**

Changes in regulation, mainly in the form of Basel III, have been largely about three key themes (capital, liquidity and risk coverage), and Recovery and Resolution Plans (RRPs) form an integral part of these regulatory reforms in terms of:

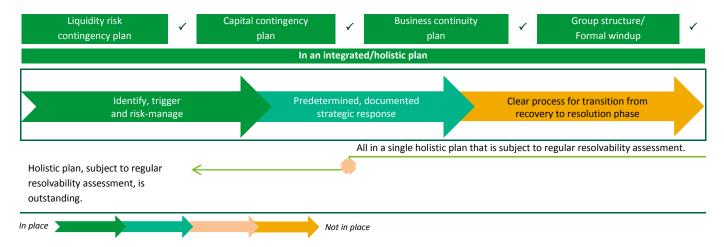
- reducing the risk of banks failing [recovery plans (RPs)];
- reducing the impact of failure (resolution plans); and
- ringfencing state/taxpayers from any implicit support to the banking sector (ie mitigate against resolution with bailout).

At a high level the RRP initiative is sponsored by the G20 and Financial Stability Board, with national regulators required to develop resolution plans. As a member of the G20, SA has committed to developing robust and credible RRPs in line with Basel III. RRPs, while at an advanced stage internationally [in respect of global systemically important banks (G-SIBs)], are now at a progressive stage in SA, with SA banks having established RPs for the first time in 2013. The SARB: PA released for comment its resolution white paper titled *Strengthening SA's Resolution Framework for Financial Institutions* in August 2015, and in January 2018 a first draft of the Resolution Framework. The draft Resolution Framework basically reconfirmed the following:

- The Reserve Bank will be the Resolution Authority (RA) and have resolution powers over designated institutions (banks, systemically important FIs, holding companies of banks and systemically important FIs).
- The RA itself cannot put a designated institution into resolution, but may recommend to the Minister that he/she puts the institution into resolution. Should an institution be put into resolution, the RA will, in terms of the draft Resolution Framework, be able to recover all resolution costs reasonably incurred in terms of performing its resolution function.
- A Deposit Insurance Scheme (DIS) will be created with the establishment of the Corporation for Deposit Insurance, which will collect deposit insurance levies and deposit insurance premiums and be mandated to manage the Deposit Insurance Fund.
- The concept of bail-in will be applied.
  - Bail-in, which is defined as any process outside liquidation that has the effect of allocating losses to liability holders and shareholders for the purpose of increasing the capital ratio of the institution, is envisaged to take place through either contractual or statutory bailin, depending on the circumstances.
- The establishment of the no-creditor-worse-off (NCWO) rule.
  - ☐ The NCWO rule aims to ensure that no creditor is worse off in resolution than it would be in normal liquidation.
  - □ To adhere to the NCWO rule the sequence in which creditors are bailed in should be respected and be in line with the hierarchy of creditor claims in liquidation.
- The introduction of the total loss-absorbing capacity (TLAC) principle.
  - □ The regulatory framework requires regulated institutions to hold loss-absorbing capital (LAC), such as regulatory capital, as well as first loss after capital (FLAC), which collectively makes up TLAC.

Taking cognisance of the above updates and the key Basel III features of effective resolution regimes, used as a benchmark, Nedbank is well positioned in terms of the four key components of an RP outlined below:

- Liquidity ✓
  - Liquidity Risk Contingency Plan (LRCP) is established and embedded.
  - The LRCP and RP were rigorously tested in March 2011, March 2015 and August 2018 through a liquidity simulation that involved all relevant internal and external participants. These simulations were managed independently by one of the large audit firms and form part of the group's overall approach to stress testing. The group performed well during these exercises and improvements identified are implemented following the simulation. These simulations are typically conducted every three years, with the next simulation scheduled for 2021.
  - The ILAAP has been fully embedded.
- Capital ✓
  - Best-practice ICAAP is fully entrenched.
  - Existing hybrid debt, preference share capital and subordinated debt issued prior to 2013 have either been redeemed on optional redemption dates or are being phased out until it is redeemed/called and/or replaced.
  - Nedbank issued R2,0bn of tier 2 capital instruments in the first half of 2018, in line with the group's capital plan.
  - Bail-in of debt was established through the changes in the Banks Amendment Bill to support the resolution of African Bank.
- Business continuity ✓
  - Nedbank has a robust Business Continuity Management (BCM) programme in place that is aimed at ensuring resilient group business activities in emergencies and disasters. This programme is regularly tested and validated.
- lacksquare Group structure (formalised, ie the ability to wind up while being 'open for business')  $\checkmark$ 
  - ☐ This is part of the ERMF.
  - Nedbank group has a relatively simple group structure.
  - ☐ The entities within the group are reviewed regularly and rationalised where possible.
  - ☐ The big SA banks are not complex compared with international banks.



Overall Nedbank Group believes it currently has the ability to identify, trigger and manage a recovery state caused typically by a solvency or liquidity event, but needs to continuously evolve and test this plan with strategic responses for various scenarios. Furthermore, closing the gap between the bank's RP and the regulator's resolution plan is required as part of strengthening SA's resolution regime based on finalisation of the Resolution Framework.

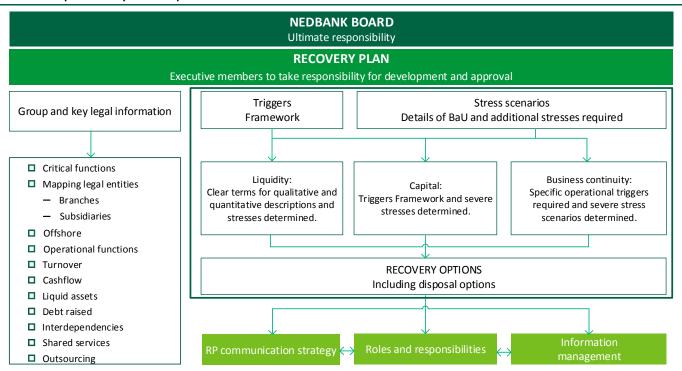
The RP element of RRP aims to set a clearer framework for Nedbank to take the most severe actions (such as sale of the business and significant asset sales) during a crisis to ensure that the bank is able to recover, including the ability to act quickly and decisively. Nedbank's RP sets out the circumstances under which the group may need to activate recovery actions as well as options available for addressing extreme stress scenarios caused by either idiosyncratic events or systemwide market failures.

The RP also describes the integration with existing contingency planning and the possible recovery options, including a detailed assessment of their likely effectiveness and the defined points at which they would be invoked. The RP addresses stresses invoked by severe shortfalls in liquidity and capital, as well as significant operational failures that may jeopardise Nedbank's ability to continue business operations. In addition, the RP addresses the various options considered by senior management to mitigate stresses encountered by Nedbank.

The Nedbank Group RP applies to all subsidiaries, divisions and branches in the group and in all the geographic locations where they operate. The RP relates to all entities in the group, including associates and joint ventures. In addition RPs have specifically been created for Nedbank Namibia, Private Wealth International [based on the Isle of Man (IOM)] and the London branch of Nedbank Limited. The inclusion of entities not controlled by the group is required, as the potential impact of a non-controlled entity may still have a systemic or reputational impact, causing a stress of sufficient magnitude to invoke the RP. Additionally, the inclusion of associates and joint ventures is required to assess whether the disposal of such an investment may assist in the recovery of the group in a particular crisis scenario.

By the end of 2018 country-specific RPs will be developed for all remaining African subsidiaries, where significant progress in terms of developing these RP's has already been made. These RPs will be developed using the group RP blueprint in order to ensure consistency and alignment across all entities.

#### Nedbank Group's Recovery Plan blueprint



The RP fits into Nedbank Group's ERMF. This plan has been developed and is updated annually with input by BSM, Group Risk, Business Continuity Planning (BCP) and the business clusters, and approved by Nedbank Group Exco and the board. The RP complements the existing capital, liquidity and stress testing policies and procedures of the group.

Old Mutual's decision of managed separation has had no impact on the strategy, day-to-day management or operations of Nedbank. In addition, there is no anticipated impact on the bank or group's solvency and liquidity positions as all previous transactions with Old Mutual have been conducted at arm's length and in the normal course of business. Regarding the group's 2018 Recovery Plan, Old Mutual has been appropriately migrated to a strategic minority shareholder as its participation in any future capital action has reduced in size. This, however, is offset through the potential participation of a wider and deeper pool of alternative institutional investors (free-float increasing from 45% to 80%).

The RP includes of 'low-to-severe stress' levels, whereby 'recovery' and 'resolution' levels represent escalating degrees of stress that the group may encounter. As levels progress, management actions will become more severe and far-reaching in nature, with the aim of restoring the financial viability of the group under recovery and thereby avoiding resolution. Under this plan early-warning indicators (EWI) have been identified that would be initiated at level one during a low-to-moderate stress event, while the RP would be initiated at level three and the resolution plan instigated by the authorities at level five. The establishment of these ordered levels and EWI are designed to increase Nedbank's ability to effectively manage any potential crisis and prepare itself for recovery. This is consistent with the Nedbank ERMF. These crisis levels allow Nedbank to assess the levels of stress appropriately and implement necessary responses. Nedbank's response to crises will include identifying and executing appropriate recovery options, proper escalation and communication within the organisation and appropriate communication to external stakeholders (eg regulators, investors, rating agencies and the media).

Nedbank's updated RPs were submitted to SARB: PA during Q4 2017. The SARB: PA RP onsite review took place in February 2018 and based, on written feedback, the SARB: PA noted the detailed and comprehensive nature of the RPs and no material issues were raised.

## Managing scarce resources to optimise economic outcomes

Managing scarce resources to optimise economic outcomes forms part of the five key strategic focus areas of Nedbank Group, which seeks to optimise the group's TTC ROE through proactive portfolio decisions such as judiciously managing groupwide allocation of scarce resources, including capital and funding for strategic and optimal financial outcomes.

SPT management is an integral part of optimising economic outcomes and is a carefully structured, integrated and holistic component of the group's 'manage for value' emphasis, involving balance sheet structuring and optimisation, strategic portfolio and client value management.

#### The key objectives of SPT are as follows:

- Maximising EP by emphasising and optimising EP-rich activities while maintaining a robust balance sheet.
- Strategic portfolio management to optimise the allocation and use of scarce resources and risk appetite.
- Differentiated and selective growth strategies aligned with the macroeconomic cycle and biased towards high-growth and high-EP businesses with a focus on the client value proposition.
- Optimising the strategic impact of Basel III, including the transitional requirements and ongoing work in progress items.
- Growing market share in retail and commercial deposits, in particular focusing on high growth of EP-rich transactional deposits.
- Effective risk management within the desired risk appetite.

#### The key considerations of SPT are as follows:

- Delta EP growth, being the primary driver of shareholder value-add.
- Growth of market share by economic value or EP (more important than volume or asset size).
- Emphasising capital and liquidity 'light' areas, the increased value and importance of deposits, and being judicious in the allocation of the scarce commodities, ie capital and funding.
- Differentiated, selective growth strategies within portfolios and products.
- Differentiation between frontbook versus backbook economics.
- Client and transactional emphasis over a product-based approach.
- Embedding cross-sell opportunities between businesses and products.
- Strategic impact of Basel III on the various businesses, portfolios, products and transactions across the group.
- Risk appetite, including concentration risk.
- Investing for the future to grow the franchise.

#### The overlays of the current and forecast economic cycles are as follows:

- SA sovereign credit ratings remain stable albeit amid persistent political and policy uncertainty, particularly with the governing party announcing support to change section 25 of the Constitution prior to the finalisation of public hearings on the land reform debate.
- The global environment is supportive, but trade disputes between the US and China continue to escalate and geopolitical tensions are on the rise.
- SA business confidence continues to disappoint, but manufacturing output surprises to the upside with retail sales growth likely to remain
  low as domestic demand remains weak.
- Economic activity is expected to rebound in H2 2018, however, the upside will be capped by global developments, trade wars, weak local demand and a politically charged local environment. Any sustained improvement in the manufacturing base will be dependent on policy certainty, enhanced investment, international competitiveness, improved public sector service delivery and healthier demand.
- Lower-than-expected wholesale advances growth was experienced during H1 2018, impacted by short-term volatile trading advances, which offset good retail advances growth. RoA advances are anticipated to grow ahead of those of SA for the rest of year.
- Bond and equity flows out of emerging markets that have political and structural vulnerabilities.
- The SA economy slipped into recession during the second quarter of 2018, shrinking by 0,7% quarter on quarter (seasonally adjusted and annualised). This followed a revised 2,6% contraction in the first quarter of 2018.
- Ongoing emerging-market currency and market volatility are experienced.
- Inflation should remain under the SARB: PA's 6% upper target range, however, it is expected to rise for the rest of the year and into 2019, largely as a result of higher food, fuel and electricity prices, as well as a weaker rand.

## Risk management

Nedbank Group's ERMF enables the group to identify, measure, manage, price and control its risks and risk appetite, and relate these to capital requirements to help ensure capital adequacy and sustainability, thereby promoting sound business behaviour by linking these aspects with performance measurement and remuneration practices.

## Risk universe

Nedbank Group's risk universe is defined, actively managed and monitored in terms of the ERMF, in conjunction with the CMF and its subframeworks, including the Economic Capital Framework. A summary table of the key risk types impacting the group is provided below and highlights the mapping of the 17 key ERMF risk types to the 12 quantitative risk types of the Economic Capital (and ICAAP) Framework. An overview of the key risks impacting Nedbank Group follows thereafter. Refer to page 8 for details on Nedbank Group's ERMF.

Major risk categories	ERMF's 17 key risk types	12 economic capital (ICAAP) risk types
Capital risk	Capital risk (6)	The aggregation of all risk types = economic capital
Credit risks	Credit risk (2)	Banking book credit risk (1)
	Underwriting (lending) risk	Integrated in credit risk
	■ Procyclicality risk	Integrated in credit risk
	Counterparty risk (includes CVA)	Counterparty credit risk (including CVA) (3)
	■ Collateral risk	Integrated in credit risk
	Concentration risk (9)	Credit concentration risk (2)
	■ Industry risk	Integrated in credit risk
	■ Issuer risk	Integrated in credit risk
	Settlement risk	Integrated in credit risk
	Country risk/Crossborder risk	Integrated in credit risk
	Securitisation risk or resecuritisation structures	Securitisation risk (4)
	Stress testing	
		Integrated in credit risk
Liquidity and funding risk	Liquidity risk	
	Concentration risk	
	Stress testing	
	Securitisation	Liquidity risk is mitigated through the ILAAP, liquidity profile targets and
	Liquidity and funding risk (5)	limits, and the holding of surplus liquidity buffers as opposed to holding
	Market liquidity risk	economic capital.
Market risks	Market risk in the trading book (8a)	
	■ Concentration risk	
	■ Stress testing	Trading (position) risk (5)
	Market risk in the banking book (8b)	
	■ IRRBB	IRRBB (6)
	Foreign currency translation (FCT) risk	N/A
	Foreign exchange transaction risk	N/A
	■ Investment risk	Investment risk
	■ Equity risk in the banking book	Equity (investment risk) (7)
	Property risk	Property risk (8)
Operational risks	Operational risk (3)	Operational risk (9)
operational risks	Accounting, financial and taxation risks (1)	Covered by operational risk
	_	
	. , ,	Covered by operational risk
	People risk (non-strategic component) (17a)	Covered by operational risk
	Insurance risks (7)	Insurance underwriting risk (10)
	■ IT risk (non-strategic component) (12a)	Covered by operational risk
	Financial-crime risk (4)	Covered by operational risk
	Reputational risk (14)	Covered by operational risk
Business risks	Transformation, social and environmental	
	risks (16)	Business risk (11)
	Business and strategic execution risk (13)	Covered by business risk (excluding strategic execution risk)
	People risk (strategic component, strategic and	
	compensation practices for directors and	
	officers) (17b)	Covered by business risk
	■ IT risk (strategic component) (12b)	Covered by business risk
	■ Governance risk (15b)	Covered by business risk
	Regulatory risk (11)	Covered by business risk
	Conduct risk (10)	Covered by business risk
		Other assets <sup>1</sup> (12)

 $<sup>^{1}</sup>$  The 12th quantitative economic capital risk type relates to other assets, which include other assets not specifically mentioned above.

Note: Stress testing is applied on all major risk types.

The following table provides an overview of the group's prudential regulatory metrics.

#### **KM1: KEY METRICS**

			Nedbank Group				
			Jun 2018 <sup>1</sup>	Mar 2018 <sup>1</sup>	Dec 2017	Sep 2017	Jun 2017
Av	ailable capital						
1	CET1	(Rm)	61 517	59 438	60 313	60 772	56 274
2	Tier 1	(Rm)	65 670	63 623	64 737	65 200	60 689
3	Total capital	(Rm)	79 083	77 046	75 920	76 384	73 994
RW	/A						
4	Total RWA	(Rm)	552 623	542 314	528 206	522 810	516 051
Ris	k-based capital ratios as a percentage of RWA						
5	CET1 ratio	(%)	11,1	11,0	11,4	11,6	10,9
6	Tier 1 ratio	(%)	11,9	11,7	12,3	12,5	11,8
7	Total capital ratio	(%)	14,3	14,2	14,4	14,6	14,3
Ad	ditional CET1 buffer requirements as a percentage of RWA						
8	Capital conservation buffer requirement	(%)	1,875	1,875	1,25	1,25	1,25
9	Countercyclical buffer requirement	(%)					
10	Bank G-SIB and/or D-SIB additional requirements	(%)					
11	Total of bank CET1 specific buffer requirements (row 8 + row 9 + row 10)	(%)	1,875	1,875	1,25	1,25	1,25
12	CET1 available after meeting the bank's minimum capital requirements	(%)	3,8	3,6	4,2	4,4	3,7
Ba	sel III leverage ratio						
13	Total Basel III leverage ratio exposure measure	(Rm)	1 086 437	1 019 589	1 009 172	1 013 565	1 000 130
14	Basel III leverage ratio (row 2/row 13)	(%)	6,0	6,2	6,4	6,4	6,1
LCI	R						
15	Total HQLA	(Rm)	148 675	139 476	138 180	151 314	144 568
16	Total NCOF	(Rm)	139 043	132 001	118 956	125 652	138 260
17	LCR	(%)	106,9	105,7	116,2	120,4	104,6
NS	FR						
18	Total available stable funding (ASF)	(Rm)	648 347				
19	Total RSF	(Rm)	556 886				
20	NSFR	(%)	116,4				

<sup>&</sup>lt;sup>1</sup> On 1 January 2018 the group adopted IFRS 9 – Financial Instruments (IFRS 9) and the capital disclosure is based on fully loaded expected credit loss (ECL) accounting model.

## **Capital management**

Nedbank Group's CMF reflects the integration of risk, capital, strategy and performance measurement, including incentives, across the group. This contributes significantly to successful enterprisewide risk management.

The board-approved Solvency and Capital Management Policy requires Nedbank Group and its banking subsidiaries (including Nedbank Limited, Nedbank Private Wealth Limited (IOM), Nedbank Namibia, Nedbank Swaziland, Nedbank Lesotho, Nedbank Zimbabwe, Nedbank Malawi and Banco Único) to be capitalised at the higher of regulatory or economic capital.

A bank is required to hold capital primarily to absorb significant unexpected losses (ULs) in any particular year. From this follows the two primary aspects of capital management:

- The banking group needs to ensure that the overall capital level is in line with a number of factors, such as the internal assessment of the level of risk being taken (economic capital), the expectations of the rating agencies, the requirements of the regulators and, not least of all, the returns expected by shareholders.
- The bank needs to ensure that the actual capital level is not only in line with this assessment, but that it takes full advantage of the range of capital instruments and capital management activities available to optimise the financial efficiency of the capital base.

Sound capital management encompasses both of these aspects, critically supported by long-run capital planning.

The BSM Cluster is mandated to facilitate and champion the successful development and implementation of the CMF and the ICAAP across the group. The capital management responsibilities (incorporating the ICAAP) of the board and group exco are incorporated in their respective terms of reference (charters) as contained in the ERMF. The Group Alco, in turn, is coordinated by the BSM Cluster.

#### NEDBANK'S FOUR KEY FUNCTIONS FOR SUCCESSFUL CAPITAL MANAGEMENT

Capital investment Capital st	ructuring Capital allocation	n Risk and capital optimisation
-------------------------------	------------------------------	---------------------------------

#### **Capital investment**

This involves managing the financial resources raised through the issue of capital and the internal generation of capital (ie retention of profits) and is integrated into the overall Asset and Liability Committee (Alco) process of Nedbank Group.

The group's interest rate risk management function within the BSM Cluster provides further rigour behind Group Alco's decisions on the extent of hedging, if at all, the group's capital against interest rate changes, and hence the impact on endowment income. This is done by modelling the relationship between changes in credit extension volumes, impairment levels and the group's endowment income when the economic cycle changes and the extent to which there is a natural hedge between them.

#### **Capital structuring**

This is the process of managing the amount of regulatory, economic and statutory capital available and ensuring it is consistent with the group's current and planned (over at least three years) levels of activity, risk appetite and required/desired level of capital adequacy (including its target debt rating), using as a tool the group's Strategic Capital Plan (SCP). The BSM Cluster is responsible for the SCP, which is a dynamic plan and process to establish all capital actions for which board approval is ultimately required. This plan is updated and reviewed regularly (monthly by Group Alco and at least quarterly by the board's GRCMC and the full board itself).

A key sophisticated planning tool enabling the SCP is the group's Capital Adequacy Projection Model (CAPM). The CAPM is fully integrated with the group's business and strategic plans, together with economic capital, Basel III, IFRS and other important parameters and financial data. CAPM projects Basel III-based regulatory and economic capital requirements for the current year and also the full planning cycle. This also covers capital requirements, AFR, capital buffers, target capital ratios, earnings, impairments, dividend plan, any constraints or limits, risk appetite metrics and details of proposed capital actions and contingencies.

Periodically the group updates its financial forecasts and projected risk parameters, and so updates the projections in the SCP. This also takes into account any actual change in the business environment and/or the group's risk profile, as well as any capital actions (or proposed revisions to previous capital plans, including any new constraints). This ensures that Nedbank Group's capital management is forward-looking and proactive, and is driven off sophisticated and comprehensive long-term capital planning.

The above process provides 'base case (or expected) projections'. The base case is then stressed by using various macroeconomic scenarios (ie Pillar 2 stress testing), in addition to risk-specific stress testing (ie additional scenarios, reverse stress testing and Pillar 1 stress testing). The outcome of the stress and scenario testing is the key factor in assessing and deciding on Nedbank Group's capital buffers, which is another key component of the SCP.

#### **Capital optimisation (including risk optimisation)**

Capital optimisation in Nedbank Group is about deriving an optimal level of capital by optimising the risk profile of the balance sheet through risk portfolio and economic-value-based management principles, risk-based strategic planning, capital allocation and sound management of the capital buffers. This is achieved by integrating risk-based capital into the group's strategy and aligning this with management's performance measurement through established governance and management structures, the formal strategic planning process, performance scorecards and the group's RAPM Framework.

#### **Capital allocation**

The BSM Cluster is also responsible for managing the efficient employment of capital across Nedbank Group's businesses, using the higher of risk-based economic and regulatory capital allocation (currently being regulatory capital at the group level), strategic portfolio management and RAPM (primarily driven by EP and 'manage for value' principles). Business unit capital allocation is determined at the higher of incountry statutory capital, regulatory capital or economic capital.

#### **SOURCES OF REGULATORY CAPITAL**

#### CET1 capital

Shareholders' equity

#### CAPITAL ALLOCATION TO BUSINESS CLUSTERS FOR PERFORMANCE MEASUREMENT

Allocated as capital using:

- Bottomup risk-based economic capital measurement.
- Allocated additional capital at 11% of bottomup risk-based economic capital measurement, as above.
- Selected regulatory capital impairments and capital add-ons.
- Subject to a regulatory capital floor, resulting in the higher of regulatory and economic capital
   allocation

#### Additional tier 1 capital

- Preference shares
- Subordinated debt

#### Tier 2 capital

Subordinated debt



Allocated as part of funding costs, impacting businesses' earnings.



Allocated as part of funding costs, impacting businesses' earnings.

#### **Economic capital**

Economic capital is a sophisticated, consistent measurement and comparison of risk across business units, risk types and individual products or transactions, enabling a focus on both downside risk (risk protection), upside potential (earnings growth) and shareholder value-add. Nedbank Group assesses the internal requirements for capital using its proprietary economic capital methodology, which models and assigns economic capital within 12 quantifiable risk categories. Nedbank Group regularly enhances its economic capital methodology and benchmarks the output to external reference points.

The total average economic capital required by the group, as determined by the quantitative risk models and after incorporating the group's estimated portfolio effects, is supplemented by a capital buffer of 10% to cater for any residual cyclicality and stressed scenarios. The total requirement is then compared with AFR. The 10% capital buffer is deemed appropriate, based on the group's comprehensive RAF and Stress Scenario Testing Framework. Refer to page 21 and 23 for further detail.

Nedbank's economic capital and ICAAP methodology is reviewed taking cognisance of any regulatory developments.

#### Summary of Nedbank's economic capital model

CREDIT RISKS							
Banking book credit risk	Credit concentration risk	Counterparty credit risk (default and CVA risk)	Securitisation risk				
Basel III AIRB credit methodology integrated with sophisticated credit portfolio management modelling.	Nedbank's Credit Portfolio Model (CPM) incorporates concentration risk and intrarisk diversification for both large exposures and industry/sector concentration.	Default risk incorporates the CEM for EAD, PD and LGD from the Basel III credit methodology, which are all integrated with sophisticated credit portfolio modelling.  CVA risk: Basel III standardised methodology.	Basel III AIRB credit methodology integrated with sophisticated credit portfolio modelling.				

MARKET RISKS						
Trading (position) risk	Interest rate risk in the banking book	Equity (investment) risk	Property risk			
VaR scaled to one year using board-approved VaR limits with no intrarisk diversification recognised.	Simulation modelling of NII. EVE is also used.	300% and 400% risk weighting risk. PD/LGD approach				

T					
Operational risk	Business risk	Insurance underwriting risk	Other assets		
AMA	GOI-based topdown approach	SAM-based methodology	100% risk weighting		

#### MINIMUM ECONOMIC CAPITAL REQUIREMENT

(after interrisk diversification benefits)

#### **CAPITAL BUFFER**

(10% ICAAP buffer for procyclicality, stressed scenarios, etc)

#### TOTAL ECONOMIC CAPITAL REQUIREMENT

Measurement period/Time horizon: one year (same as Basel III). onfidence interval (solvency standard): 99,93% (A) (ie more prudent than Basel III at 99,90%).

#### versus

#### **AVAILABLE FINANCIAL RESOURCES**

Tier A = CET1 regulatory capital and qualifying reserves.

Tier B = Includes Basel II perpetual preference shares
new-style Basel III additional tier 1 and tier 2 capital instrum

Note: There are 12 quantifiable risk categories. Property and equity (investment) risks are treated as separate risks. The group no longer capitalises for transfer risk separately, as this risk type is captured under the Country Risk Framework in credit risk.

The economic capital results are shown from page 40.

#### Credit risk capital

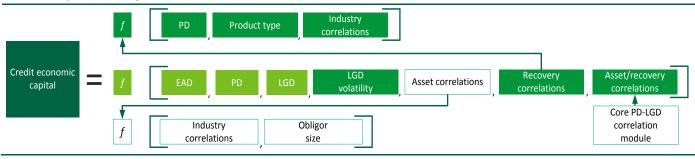
Nedbank Limited and the Nedbank London branch make up 91,7% of the total credit extended by Nedbank Group and are on the AIRB Approach. The legacy Nedbank Private Wealth Limited (IOM) and the non-SA subsidiaries' credit portfolios and some of the legacy Imperial Bank portfolio in Nedbank RBB remain on TSA.

For the purpose of estimating internal economic capital conservative AIRB credit benchmarks are applied for the subsidiaries that are utilising TSA, except for the legacy Nedbank Private Wealth Limited (IOM) book that applies internal-model estimates.

The group's credit risk economic capital (or credit VaR) is more sophisticated than the AIRB Approach and is calculated using credit portfolio modelling based on the volatility of UL. This estimated UL is measured from the key AIRB Approach credit risk parameters (PD, EAD and LGD) as well as taking LGD volatility, portfolio concentrations and intrarisk diversification into account.

It is important to recognise that the group's economic capital goes further than Basel III in explicitly recognising credit concentration risks (eg single large-name and industry/sector risks) and includes PD-LGD correlation effects that aim to capture the phenomenon of joint movements in default and loss rates, ie lower-than-expected (average TTC) recoveries during periods with elevated default rates above the TTC PDs (and vice versa).

#### Credit risk capital (including PD-LGD correlation)



Nedbank Group's CPM aggregates standalone credit risks into an overall group credit portfolio view, then takes concentration risk and diversification effects into account.

#### Counterparty credit risk capital

Nedbank Group applies the CEM for Basel III CCR. The CEM results are also used as input into the economic capital calculations to determine credit economic capital. In April 2014 the BCBS published a revision to the paper The Standardised Approach for measuring CCR exposures, which outlines the new Standardised Approach for calculating EAD in respect of over-the-counter (OTC) derivatives. TSA for counterparty credit risk (SA-CCR) will replace both the CEM and the Standardised Method. Nedbank is well positioned to implement the new requirements and continues to monitor the impact of the new measurement of EAD for CCR. On 23 August 2017 the SARB: PA published Guidance Note 7 of 2017, communicating the regulator's decision to delay implementation of the new standard to 1 March 2019. In December 2017 the BCBS published the paper Basel III: Finalising post-crisis, which among other changes introduced the following to the determination of RWA for CCR:

- The introduction of the Basic Approach and a new Standardised Approach for the measurement of CVA RWA.
- The application of the Foundation IRB Approach for financial institution and large corporate counters.
- The introduction of PD and LGD parameter floors for the Advanced IRB Approach.

#### Securitisation risk capital

As with credit derivatives, Nedbank Group does not have significant exposure to securitisation. The group has used securitisation primarily as a funding diversification tool. For the credit exposures that Nedbank Group measures in terms of securitisation, a combination of the ratings-based approach and supervisory formula approach (SFA) (both AIRB approaches) is used for regulatory capital purposes. From an economic capital (ICAAP) point of view IRB credit risk parameters are used. As is evident from the low level of exposure, the risk of underestimation of the Pillar 1 securitisation risk charge is considered immaterial.

#### Trading market risk capital

The economic capital and regulatory capital requirements for trading market risk are not materially different. However, conservatism is introduced in Nedbank Group's economic capital methodology by using the total approved VaR limit rather than the actual VaR limit utilisation.

The VaR limit is set per market risk type and also per legal entity. The economic capital requirements are calculated for each market risk type and legal entity. Applying further conservatism, the trading risks for all market risk types and legal entities are all added up without applying any diversification benefits when deriving the required group economic capital.

For the regulatory capital charge Nedbank Limited has obtained approval to use the IMA methodology that is based on VaR utilisation multiplied by a regulatory-driven factor. The factor is determined by SARB: PA and is based on its review of the bank's market risk environment.

The regulatory capital charge based on the IMA does allow for diversification between different market risk types.

### Interest rate risk in the banking book capital

IRRBB is the risk a bank faces due to timing mismatches in the maturity (for fixed rate) and repricing (for floating rate) of bank assets, liabilities and off-balance-sheet positions, as well as the non-repricing elements of its balance sheet, including equity, certain transactional deposit accounts and working capital. The repricing mismatch between the two sides of the balance sheet makes the bank vulnerable to changes in interest rates, a risk against which the bank therefore needs to hold capital. IRRBB is not separately identified by Basel III for Pillar 1 regulatory capital, and so Nedbank captures this under Pillar 2 in the ICAAP.

Nedbank Group's IRRBB economic capital methodology is based on simulation modelling of the bank's NII exposure to changes in interest rates as represented by a stochastic interest rate shock. EVE exposure is also used as a secondary measure. The stochastic interest rate shock is quantified based on the volatility, derived from a one-year log return of the past five years of money market data, applied to current interest rates. The IRRBB economic capital is defined as the difference between the 99,93% probability NII and the probability weighted mean NII of stochastic modelling.

### Property risk capital

Property risk is the risk a bank faces due to the fluctuation of property values. In the case of Nedbank Group this includes the capital to be held against properties in possession (PIPs) as well as its fixed property, and is included under 'other assets' for regulatory capital and so attracts a 100% risk weighting.

Nedbank Group's economic capital calculations for property risk are far more conservative than the 100% risk weight for regulatory capital, being aligned with the treatment under the SRWA applied under Basel III for unlisted equity risk, namely a 400% risk weighting.

### Equity risk capital

Equity risk is the risk of decline in the net realisable value of investment assets arising from adverse movements in market prices or factors specific to any investment itself (eg reputation and quality of management). These investments are long term as opposed to the holding of short-term positions that are covered under trading risk. The calculation of economic capital in Nedbank Group for equity (investment) risk is similar to that of property risk above. However, the two risks have been separated as both are material to the group and therefore deserve separate focus and quantification.

The calculations of economic capital for equity (investment) risk are based on the same principles as for Basel III, namely the SRWA is used for the bulk of the portfolio, the exception being in the Property Finance Division. In line with moving to a bottomup approach, the Property Finance book investment risk economic capital is modelled using a PD/LGD approach. Other equity risk attracts a 300% and 400% risk weighting for listed and unlisted equity exposures respectively.

### Business risk capital

Business risk is caused by uncertainty in profits due to changes in the competitive environment, client behaviour and disruptive technological innovation that damage the franchise or operational economics of a business. In other words, it is the risk the bank faces due to fluctuations in earnings, is readily observable and is driven mainly by volumes, margins and fees. In the extreme, business risk can be seen as the risk of being unable to cover one's cost base should all or most of an entity's earnings fall away.

The business risk approach at Nedbank is effectively split into two parts:

- a topdown calculation of the group's capital requirement; and
- a bottomup scenario-based allocation approach to businesses across the group.

While business risk can arise through changes in revenues and costs, this methodology uses revenues as the primary anchor point and accounts for costs primarily as a business risk mitigation mechanism.

### Operational risk capital

Nedbank Group uses the AMA with diversification, and calculates its operational risk regulatory and economic capital requirements using partial and hybrid AMA. Partial use refers to a bank, controlling company or banking group using AMA for some parts of its operations and TSA for the remainder of its operations. Hybrid AMA refers to the attribution of group operational risk capital to legal entities by means of an allocation mechanism.

Nedbank uses a more conservative confidence interval approach of 99,93% for economic capital when compared with the 99,90% confidence interval required for regulatory capital. For economic capital no capital floors were applied under the 2017 methodology. For regulatory capital a floor based on a percentage of TSA capital is applied to meet the minimum requirements prescribed by SARB: PA.

### Insurance underwriting risk capital

Insurance underwriting risk can be defined as the risk that underwriting experience is worse than expected due to changing trends in experience or once-off events that cover death, disability, retrenchment, property and motor vehicle damage. Nedbank Group insurance risk also includes insurance product design risk.

Actuarial and statistical methodologies are used to price insurance risk. These methods are quantified based on industry-standard parameters and considers long-term increases to risks as well as extreme short-term shocks that could affect multiple clients (such as a hail storm). Economic capital allows for the implementation of authorised management actions after a 12-month period. These management actions include repricing products where it is possible, adjusting bonus declarations and the removal of non-vested bonuses.

Insurance risk economic capital is aligned with the requirements of the SAM regime (the local version of Solvency II), but at a higher internal statistical confidence level of 99,93%. It is calculated for both life products and non-life products.

The Insurance Act became effective on 1 July 2018 and gives effect to the formal commencement of the SAM regulatory regime. The FSRA was processed by Parliament ahead of the Insurance Act. This enabled the Insurance Act to build on the regulatory framework created through the FSRA. The associated Prudential Standards have been released with the Insurance Act. These Standards provide the framework, methodology and requirements that will drive SAM.

Nedbank Insurance has been steadily preparing for SAM and significant work and resources have been invested in the comprehensive SAM parallel runs that have been taking place for the last five years. This extensive preparation has positioned us well for the implementation and 'go-live' of the SAM requirements, although further time and effort will be invested to ensure that our processes are appropriately streamlined and automated.

An initial assessment of the relevant Financial Soundness Standards (SAM Pillar 1) indicates that we are currently compliant with the applicable financial standards, after taking into account proportionality for certain minor product lines.

### Other assets risk capital

For economic capital purposes the same approach as for regulatory capital requirements is followed, namely 100% risk weighting in line with regulation 23 of the regulations relating to banks issued in terms of the Banks Act (Act No 94 of 1990), which incorporates the monthly return concerning credit risk (BA200). For economic capital this excludes property risk, as that is treated as a separate risk type, whereas for regulatory capital property risk is subsumed under other assets risk and attracts a 100% risk weighting.

#### Interrisk diversification

Risk diversification is a basic premise of any prudent risk management strategy and it is included in Nedbank Group's economic capital (ICAAP) measurement in the form of interrisk diversification benefits. The methodology is based on a joint-loss simulation using copula and involves the specification of standalone risk distributions for each relevant risk type, either as an empirical or parametric distribution. Risk indicators are defined for each of the economic capital risk types and a dependence structure is derived in the form of a risk indicator correlation matrix based on appropriate time series data.

The interrisk diversification model simulates a combined-loss distribution using this dependence structure and the Monte-Carlo simulation. Total diversified economic capital is derived and allocated to risk types using the correlated-loss distribution.

The group's interrisk diversification benefit at Nedbank Group is allocated back (in the capital allocation) to the business units rather than held at the centre.

Diversification benefits are allocated on a continuous basis. The continuous approach allocates economic capital to business units according to the contribution of the business unit to the total group capital requirement. Smallest and/or least uncorrelated business units benefit most from diversification. Allocation of capital allows business units to benefit from being part of a larger, well-diversified group and they can therefore price products more appropriately and competitively.

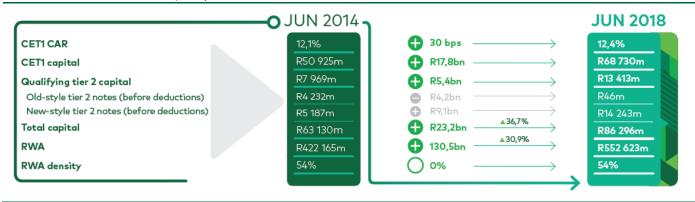
### Qualitative risks that cannot be mitigated by capital

Nedbank Group's Economic Capital Framework is aligned with international best practice. Not all risks can be mitigated by holding capital against them, although Nedbank Group has mapped 12 of the key risk categories in its ERMF to the group's Economic Capital Framework, with liquidity risk being one of the unmapped risks.

Within Nedbank Group's BSM Cluster a dedicated funding and liquidity function is responsible for the strategic management of funding and liquidity across the group. The group's daily liquidity requirements are managed by the experienced Centralised Funding Desk (CFD) in Group Treasury. Within the context of the board-approved Liquidity Risk Management Framework, BSM and the CFD are responsible for proactively managing liquidity risk at an operational, tactical and strategic level.

### Regulatory capital adequacy and leverage

### NEDBANK GROUP'S CAPITAL ADEQUACY, A FOUR-YEAR REVIEW



Nedbank manages its capital levels in line with a number of factors, including the internal assessment of the level of risk being taken, the expectations of the rating agencies, the requirements of the regulators and the returns expected by shareholders. Nedbank also seeks to ensure that its capital structure takes full advantage of the range of capital instruments and capital management activities available in optimising the financial efficiency and loss absorption capacity of its capital base.

Nedbank Group has performed extensive and comprehensive stress testing during this period, and concludes that the group remains strongly capitalised relative to its business activities, the board's strategic plans, risk appetite, risk profile and the external environment in which the group operates.

Nedbank Group has maintained its strong capital adequacy position over the past four years, with the CET1 capital ratio at 12,4% absorbing most recently the full adverse impact of IFRS 9 implemented in January 2018. The CET1 capital ratio has been supported by strong earnings generation and an appropriate dividend policy. The group's sound capital structure is supported by:

- A focus on fully loss-absorbent capital, with Basel III fully compliant capital now making up 98% of the group's total qualifying capital structure, having issued R14,2bn of new-style tier 2 capital and R2,6bn of new-style additional tier 1 capital since the implementation of Basel III in 2013.
- A conservative RWA density of 54% (RWA/total assets), which compares favourably with local and international peers.
- A substantial tier 1 capital surplus of R23,8bn, which includes management buffers earmarked to absorb the impact of new regulatory changes in the short term (SA-CCR and IFRS 16 in 2019), other regulatory reforms (prudential requirements, tax and IFRS) over the medium to long term and management's strategic plans.

		SARB: PA minimum <sup>1</sup>	Internal targets <sup>2</sup>	Jun 2018	Jun 2017	Dec 2017
Nedbank Group			_			
Including unappropriated profits						
Total CAR	(%)		> 14	15,6	15,7	15,5
Total tier 1	(%)		> 12	13,2	13,2	13,4
CET1	(%)		10,5–12,5	12,4	12,3	12,6
Surplus tier 1 capital	(Rm)			23 837	22 807	24 625
Leverage	(times)	< 25	< 20	14,9	14,7	14,2
Dividend cover	(times)		1,75-2,25	2,00	1,80	1,91
Cost of equity	(%)			13,8	13,9	14,0
Excluding unappropriated profits						
Total CAR	(%)	11,125		14,3	14,3	14,4
Total tier 1	(%)	8,875		11,9	11,8	12,3
CET1	(%)	7,375		11,1	10,9	11,4
Nedbank Limited						
Including unappropriated profits						
Total CAR	(%)		> 14	16,3	16,8	16,7
Total tier 1	(%)		> 12	13,2	13,4	13,9
CET1	(%)		10,5-12,5	12,1	12,2	12,6
Surplus tier 1 capital	(Rm)			19 378	19 803	22 055
Excluding unappropriated profits						
Total	(%)	11,125		15,5	15,7	15,9
Total tier 1	(%)	8,875		12,3	12,3	13,1
CET1	(%)	7,375		11,2	11,1	11,9

SARB: PA minimum requirement for 2018 reflects the phase-in of the conservation buffer at 1,875% and is disclosed excluding bank-specific Pillar 2b and D-SIB capital requirements.

Nedbank Group's CET1 ratio declined to 12,4% due to the full impact of the implementation of IFRS 9 and IFRS 15, further investment in software development costs as part of the group's ME programme and the payment of the 2017 final dividend in April 2018, which offset, to a degree, organic earnings generated and the positive impact following the weakening of the rand against the US dollar during the period.

- This was further impacted by:
  - □ Credit RWA growth, primarily due to portfolio growth in RBB, the implementation of Basel model updates in the vehicle asset finance portfolio and the downgrade of a specific counter in the wholesale portfolio, which is appropriately secured and closely monitored.
  - ☐ Trading market RWA growth due to an increase in exposures.
  - Other assets RWA growth due to balance sheet movement, offset by a decrease in threshold RWA, as a result of a reduction in the value of the associate investment in ETI.

The group's tier 1 CAR of 13,2% was adversely impacted by further grandfathering of preference shares in January 2018, in line with the Basel III transitional arrangements.

The group's total CAR of 15,6% was positively impacted by the issuance of tier 2 capital of R2,0bn in March 2018, in line with the group's capital plan.

Nedbank Group's gearing (including unappropriated profits) increased to 14,9 times from 14,2 times in December 2017, largely as a result of balance sheet growth, the impact of IFRS 9 on 1 January 2018 and the adverse tier 1 capital movements as described above.

#### **OV1: NEDBANK GROUP OVERVIEW OF RISK-WEIGHTED ASSETS**

	Jun 2	018	Jun 2017	Dec 2017
	RWA	MRC <sup>1</sup>	RWA	RWA
Credit risk	372 717	41 465	358 231	356 893
Standardised Approach	40 530	4 509	39 807	37 410
Advanced Internal Ratings-based Approach	332 187	36 956	318 424	319 483
Counterparty credit risk	15 819	1 759	17 583	23 921
Current Exposure Method	15 819	1 759	17 583	23 921
Equity positions in banking book under Market-based Approach	31 393	3 492	22 745	26 927
Securitisation exposures in banking book	526	59	1 203	621
IRB Ratings-based Approach	206	23	39	263
IRB Supervisory Formula Approach	320	36	1 164	358
Market risk	23 243	2 586	17 182	17 142
Standardised Approach	3 798	423	3 814	3 643
Internal Model Approach	19 445	2 163	13 368	13 499
Operational risk	68 460	7 616	64 266	66 333
Standardised Approach	6 373	709	5 997	6 030
Advanced Measurement Approach	53 783	5 983	46 137	52 596
Floor adjustment	8 304	924	12 132	7 707
Amounts below the thresholds for deduction (subject to 250% risk weighting)	14 190	1 579	14 690	15 016
Other assets (100% risk weighting)	26 275	2 923	20 151	21 353
Total	552 623	61 479	516 051	528 206

#### **OV1: NEDBANK LIMITED OVERVIEW OF RISK-WEIGHTED ASSETS<sup>2</sup>**

	Jun 2	2018	Jun 2017	Dec 2017
	RWA	MRC <sup>1</sup>	RWA	RWA
Credit risk	309 245	34 403	298 795	295 646
Standardised Approach	423	47	1 370	426
Advanced Internal Ratings-based Approach	308 822	34 356	297 425	295 220
Counterparty credit risk	15 033	1 672	16 906	23 169
Current Exposure Method	15 033	1 672	16 906	23 169
Equity positions in banking book under Market-based Approach	22 651	2 520	16 670	20 386
Securitisation exposures in banking book	526	59	1 203	621
IRB Ratings-based Approach	206	23	39	263
IRB Supervisory Formula Approach	320	36	1 164	358
Market risk	20 092	2 235	14 065	14 046
Standardised Approach	1 205	134	697	1 222
Internal Model Approach	18 887	2 101	13 368	12 824
Operational risk	59 503	6 620	56 375	57 664
Standardised Approach	12	1	28	16
Advanced Measurement Approach	51 620	5 743	44 511	50 380
Floor adjustment	7 871	876	11 836	7 268
Amounts below the thresholds for deduction (subject to 250% risk weighting)	2 280	254	1 905	2 058
Other assets (100% risk weighting)	21 702	2 414	15 548	17 616
Total	451 032	50 177	421 467	431 206

<sup>&</sup>lt;sup>1</sup> Total minimum required capital (MRC) is measured at 11,125% in line with the transitional requirements and excludes bank-specific Pillar 2b and D-SIB capital requirements.

<sup>&</sup>lt;sup>2</sup> Nedbank Limited refers to the SA reporting entity in terms of regulation 38 (BA700) of the regulations relating to banks issued in terms of the Banks Act (Act No 94 of 1990).

### NEDBANK GROUP - RETURN ON RISK-WEIGHTED ASSETS

%	Jun 2018	Jun 2017	Dec 2017
Nedbank Group	2,4	2,0	2,2
Nedbank CIB	2,6	2,7	2,5
Nedbank RBB	2,8	2,8	3,0
Nedbank Wealth	4,1	4,1	4,4
Rest of Africa	1,0	(4,7)	(1,7)
Centre	0,3	0,7	(0,3)

### SUMMARY OF REGULATORY QUALIFYING CAPITAL AND RESERVES<sup>1</sup>

	Nedbai	nk Group		N	edbank Limi	ted
Rm	Jun 2018	Jun 2017	Dec 2017	Jun 2018	Jun 2017	Dec 2017
Including unappropriated profits						
Total tier 1 capital	72 883	67 961	70 843	59 407	56 681	59 786
CET1	68 730	63 546	66 419	54 682	51 425	54 530
Share capital and premium	19 816	19 179	19 170	19 221	19 221	19 221
Reserves	61 698	58 389	62 055	45 737	43 533	47 427
Minority interest: Ordinary shareholders	911	741	812			
Deductions	(13 695)	(14 763)	(15 618)	(10 276)	(11 329)	(12 118)
Goodwill	(5 168)	(5 142)	(5 131)	(1 410)	(1 410)	(1 410)
Excess of expected loss over eligible provisions	(438)	(1888)	(2 008)	(452)	(1 921)	(1 952)
Defined-benefit pension fund assets	(739)	(2 024)	(1 957)	(739)	(2 024)	(1 957)
Capitalised software and development costs	(6 765)	(5 387)	(5 994)	(6 716)	(5 092)	(5 930)
Other regulatory differences and non-qualifying reserves	(585)	(322)	(528)	(959)	(882)	(869)
Additional tier 1 capital	4 153	4 415	4 424	4 725	5 256	5 256
Preference share capital and premium	2 125	2 656	2 656	2 125	2 656	2 656
Perpetual subordinated debt instruments	2 600	2 600	2 600	2 600	2 600	2 600
Regulatory adjustments	(572)	(841)	(832)			
Tier 2 capital	13 413	13 305	11 183	14 298	14 294	12 294
Subordinated debt instruments	14 290	14 290	12 290	14 290	14 290	12 290
General allowance for credit impairment	318	157	157	8	4	4
Regulatory adjustments	(1 195)	(1 142)	(1 264)			
Total capital	86 296	81 266	82 026	73 705	70 975	72 080
Excluding unappropriated profits						
Tier 1 capital	65 670	60 689	64 737	55 413	51 932	56 403
CET1 capital	61 517	56 274	60 313	50 688	46 676	51 147
Total capital	79 083	73 994	75 920	69 711	66 226	68 697

<sup>&</sup>lt;sup>1</sup> For comprehensive 'composition of capital' and 'capital instruments main features' disclosure please refer to nedbank.co.za/content/nedbank/desktop/gt/en/aboutus/information-hub/capital-and-risk-management-reports.html.

### **REGULATED BANKING SUBSIDIARIES**

Nedbank Group banking subsidiaries are well capitalised for the environments in which they operate, with CARs well in excess of respective host regulators' minimum requirements.

		Jun 2018		Jun 2017		Dec 2017	
	Total capital requirement (host country)	RWA	Total capital ratio	RWA	Total capital ratio	RWA	Total capital ratio
	%	Rm	%	Rm	%	Rm	%
Rest of Africa							
Banco Único	8,0	3 663	14,9	2 982	13,0	2 861	17,7
Nedbank Namibia Limited	10,0	12 162	16,9	12 106	14,3	12 096	15,2
Nedbank (Swaziland) Limited	8,0	2 985	25,4	3 050	23,2	3 219	23,8
Nedbank (Lesotho) Limited	8,0	2 199	21,5	1 621	27,3	1 711	25,8
Nedbank (Malawi) Limited	15,0	326	24,1	332	17,3	301	11,4
Nedbank (Zimbabwe) Limited	12,0	3 037	27,6	2 435	28,3	2 252	30,7
Isle of Man							
Nedbank Private Wealth (IOM) Limited	10,0	7 302	15,8	7 028	15,6	6 624	16,3

### **Economic capital adequacy**

#### Strong Nedbank Group economic capital adequacy and ICAAP maintained

Economic capital is the group's comprehensive internal measurement of risk and related capital requirements, and forms the basis of the group's ICAAP. Nedbank's ICAAP confirms that both Nedbank Group and Nedbank Limited are well capitalised above their current 'A' or 99,93% target debt rating (solvency standard) in terms of the group's proprietary economic capital methodology.

Nedbank Group's and Nedbank Limited's ICAAP reflect surplus AFR of R23,7bn and R24,2bn respectively after a 10% capital buffer is added. This is determined in accordance with the group's comprehensive Stress and Scenario Testing Framework.

Further details on Nedbank's risk types and economic capital methodology are reflected from page 33.

#### **ECONOMIC CAPITAL REQUIREMENT VERSUS AVAILABLE FINANCIAL RESOURCES**

		Nedbank Group						Nedbank	Limited			
	Jun 2	2018	Jun 2	.017	Dec 2	2017	Jun 2018		Jun 2017		Dec 2017	
	Rm	Mix %	Rm	Mix %	Rm	Mix %	Rm	Mix %	Rm	Mix %	Rm	Mix %
Credit risk	38 717	65	36 167	64	37 027	65	33 437	71	31 726	70	31 935	69
Market risk	7 637	13	8 186	15	7 789	14	5 549	12	5 334	12	5 784	12
Business risk	7 192	12	6 630	12	6 654	12	4 405	9	4 553	10	4 553	10
Operational risk	3 236	5	3 214	6	3 420	5	2 396	5	2 354	5	2 488	5
Insurance risk	536	1	385	< 1	535	1						
Other assets risk	2 384	4	1 655	3	1 904	3	1 631	3	1 459	3	1 630	4
Minimum economic capital requirement	59 702	100	56 237	100	57 329	100	47 418	100	45 426	100	46 390	100
Add: stress-tested capital buffer (10%)	5 970		5624		5 733		4 742		4 543		4 639	
Total economic capital requirement	65 672		61 861		63 062		52 160		49 969		51 029	
AFR	89 396	100	83 229	100	85 675	100	76 360	100	72 177	100	74 705	100
Tier A capital	70 428	79	65 730	79	68 176	80	57 392	75	54 678	76	57 206	77
Tier B capital	18 968	21	17 499	21	17 499	20	18 968	25	17 499	24	17 499	23
Total surplus AFR	23 724		21 368		22 613		24 200		22 208		23 676	
AFR/total economic capital requirement (%)	136		135		136		146		144		146	

Nedbank Group's minimum economic capital requirement increased by R2,4bn during the first half of the year, primarily due to:

- A R1,7bn increase in credit risk economic capital, which was mainly driven by the downgrade of a specific counter in the wholesale portfolio, which is appropriately secured and closely monitored.
- Increases in business risk economic capital of R538m and R480m in other assets risk economic capital, which were mainly driven by annual model parameter updates.

These higher economic capital requirements were offset by a R152m decrease in market risk economic capital, which was primarily driven by a decrease in IRRBB economic capital mainly due to the decrease in stochastic results following the annual update of interest rate volatilities in 2018.

Nedbank Group's total AFR increased by R3,7bn during the first half of the year driven by:

- A R2,3bn increase in tier A AFR, as a result of changes in defined-benefit pension fund assets, organic earnings generated, as well as the implementation of IFRS 9 in 2018 which resulted in higher provisions compared to through-the-cycle (TTC) expected losses.
- A R1,5bn increase in tier B AFR, following the issuance of tier 2 capital instruments of R2,0bn, partially offset by further grandfathering of old-style preference shares of R531m.
- The group's AFR was adversely impacted by:
  - The full impact of the implementation of IFRS 9 and IFRS 15.
  - □ The payment of the 2017 final dividend in April 2018.

Nedbank Limited's minimum economic capital requirement increased by R1,0bn during the first half of the year, mainly due to an increase in credit risk economic capital, for the same reasons as stated above for the group.

Nedbank Limited's total AFR increased by R1,7bn during the first half of the year for the same reasons as stated above for the group.

### **External credit ratings**

	Standard	& Poor's	Moody's Inve	Moody's Investors Service		
	Nedbank	Sovereign	Nedbank	Sovereign		
	Limited	rating SA	Limited	rating SA		
	Nov 2017	Nov 2017	Mar 2018	Mar 2018		
Outlook	Stable	Stable	Stable	Stable		
Foreign currency deposit ratings						
Long-term	BB	BB	Baa3	Baa3		
Short-term	В	В	P-3	P-3		
Local currency deposit ratings						
Long-term	ВВ	BB+	Baa3	Baa3		
Short-term Short-term	В	В	P-3	P-3		
National scale rating						
Long-term deposits	zaAA+	zaAA+	Aa1.za			
Short-term deposits	zaA-1+	zaA-1+	P-1.za			

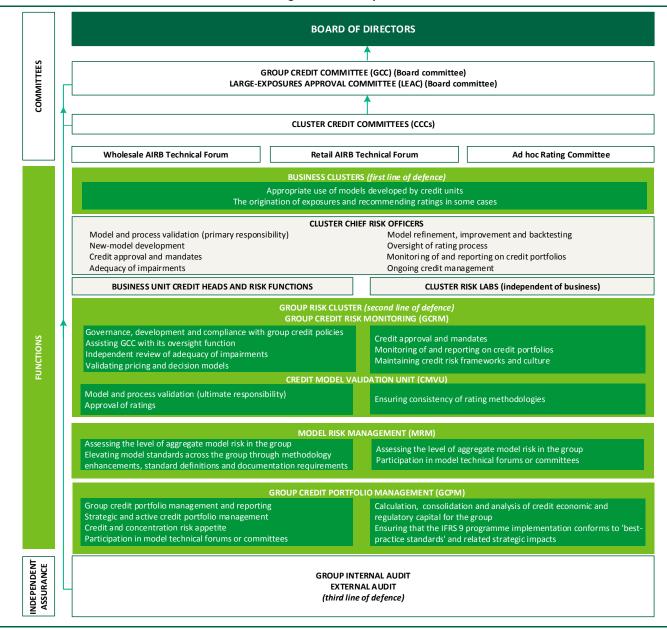
# **Credit risk**

Credit risk arises from lending and other financing activities that constitute the group's core business. It is the most significant risk type and accounts for 65% of the group's economic capital and 70,4% of regulatory capital requirements. The lower percentage contribution under economic capital is mainly due to the additional risk types (such as business risk) explicitly capitalised under economic capital.

### **Credit governance and structures**

Nedbank's credit risk governance structure is reflected in the following diagram:

Governance structure of Nedbank's Advanced Internal Ratings-based credit system



Credit risk is managed across the group in terms of the board-approved Group Credit Risk Management Framework (GCRMF), which covers the macrostructures for credit risk management. The GCRMF incorporates selected excerpts from the banking regulations, group credit policy, credit approval mandates, credit risk monitoring and governance structures. It is a key component of the group's ERMF, Capital Management and RAF, and is reviewed quarterly.

The GCRMF includes the two AIRB Approach technical forums (ie wholesale and retail) and the Group Credit Ad hoc Rating Committee, which reports into the GCC. Also included is the Large-exposures Approval Committee (LEAC), whose function is the approval or decline of credit applications in excess of the large-exposure threshold imposed by the Banks Act (Act No 94 of 1990).

The GCC is the designated committee appointed by the board to monitor, challenge and ultimately approve all material aspects of the group's AIRB rating systems and processes. The current membership includes seven non-executive directors and three executive directors. The board and the GCC are required by the banking regulations to have a general understanding of the AIRB system and the related reports. The GCC ensures the independence of the Group Credit Risk Monitoring (GCRM) function from the business units originating the credit financial assets in the bank.

GCRM monitors the business units' credit portfolios, risk procedures, policies and credit standards, maintains the Group Credit Risk Management Framework and validates AIRB credit models and non-regulatory capital models. GCRM reports to executive management, CCCs and ultimately the board's GCC on a regular basis. Additionally, GCRM ensures consistency in the rating processes, and has ultimate responsibility for independent credit model validation through the Credit Model Validation Unit (CMVU), the group's independent risk control unit, as per the banking regulations. GCRM and Group Credit Portfolio Management (GCPM) champion the Basel III AIRB methodology across the group. Model risk, defined as the risk that adverse consequences may arise from decisions made using models that are deficient, misunderstood or misused, is managed by Model Risk Management (MRM) through robust independent validation, a sound model governance framework and groupwide awareness and oversight of the model risk environment.

CCCs, with chairpersons mainly from GCRM and independent of the business units, exist for all clusters across the group. The CCCs are responsible for approving credit policy and credit mandates as well as reviewing business-unit-level credit portfolios, compliance with credit policies, credit risk appetite parameters, adequacy of impairments, EL and credit capital levels. In respect of tier 2 credit approvals Credit Risk Management Committees (CCCs in credit approval mode) are also chaired by GCRM staff to ensure independence from the business. Each cluster has a cluster credit risk lab that is responsible for the ongoing design, implementation, business validation and performance of the cluster's internal rating systems and AIRB credit models, subject to independent annual validation by the CMVU.

GCPM monitors the group's credit portfolio and is responsible for reporting strategic and active credit portfolio management, maintaining the group's RAF and concentration appetite, reporting on strategic management of the health status of the bank's AIRB system, as well as contributing to Nedbank's IFRS9 and Credit 2020 programmes. GCPM runs the group's calculation, consolidation and analysis of credit economic and regulatory capital. GRPM is responsible for the maintenance and enhancement of the inhouse-developed CPM and the credit risk calculation engine, as well as the testing and implementation of all credit regulatory model updates.

The credit risk management process incorporates the review of the granting of financial assistance, funding in the normal course of business, investments and bank accounts across related companies. Group Credit Policy includes the required governance in respect of intercompany loans granted by regulated entities. The GCC also receives reports from Group Financial Control to ensure compliance with the requirements of section 45 of the Companies Act in terms of financial assistance between related companies.

Intercompany loans in terms of section 45 of the Companies Act have a threshold as per Nedbank board and shareholder resolutions. The balances at 30 June 2018 for Nedbank Group Limited and Nedbank Limited have not breached the threshold. While the Companies Act requires a special resolution every two years when financial assistance is provided, Nedbank Group Limited and Nedbank Limited consider this resolution annually, performing both solvency and liquidity tests biannually.

## Credit risk approaches across Nedbank

Nedbank Limited and the Nedbank London branch make up 93,9% of the total credit extended by Nedbank Group and are on the AIRB Approach. Private Wealth International and the non-SA subsidiaries credit portfolios and some of the legacy Imperial Bank portfolio in Nedbank RBB remain on TSA.

For the purpose of estimating internal economic capital, and for use in ICAAP, conservative AIRB credit benchmarks are applied for all the subsidiaries that use TSA.

### **Credit risk exposures**

The Nedbank Group banking book net loans and advances increased 2,7% year on year to R689,4bn, driven by solid growth in RBB, but offset by the IFRS day one impact of R2,9bn. Excluding the IFRS impact, banking book net advances grew 3,1%. Trading advances declined 39,7%, which included the result of settling expensive foreign funding and reduced interbank foreign placements.

RBB gross loans and advances grew 6,8% to R326,9bn, supported by growth across all asset classes, in line with risk appetite and prudent origination strategies.

- Business Banking grew 8,5%, due largely to an increase in new-loan payouts, coupled with an increase in client drawdowns of existing facilities.
- MFC increased by 9,7% as new-business volumes remained robust despite a muted new-vehicle sales market.
- Unsecured Lending gross advances grew by 7,8%, and we remain comfortable with the quality and overall performance of the unsecured-lending portfolio based on the conservative rules we apply to consolidation, restructuring and term strategies.
- Card gross advance growth of 4,4% was offset by an increase in impairments due to IFRS 9 and IFRS 15 changes, resulting in a decrease of 1,3% in net advances.
- Home Loans grew at a below-inflation level of 1,8% as growth in the overall residential mortgage market remains muted and Nedbank maintained market share.

CIB gross loans and advances decreased 5,1% year on year to R347,3bn. Growth in the banking book declined slightly due to a combination of ongoing early repayments, managed selldowns, which allowed for the diversification of risk, and a decrease in the preference share book due to a smaller appetite for preference share deals.

Property Finance gross loans and advances grew by 5,3%, and has maintained its leading market share thanks to a highly experienced team.

#### **CR1: CREDIT QUALITY OF ASSETS**

		Gross carryin	ng values of		
Rm		Defaulted	Non-defaulted	Allowances/	
June	e 2018	exposures	exposures	Impairments <sup>1</sup>	Net values
1	Loans	22 785	704 148	14 265	712 668
2	Debt securities		137 184		137 184
3	Off-balance-sheet exposures		206 720		206 720
4	Total	22 785	1 048 052	14 265	1 056 572
June	e 2017				_
1	Loans	20 190	701 720	12 046	709 864
2	Debt securities		109 501		109 501
3	Off-balance-sheet exposures		177 938		177 938
4	Total	20 190	989 159	12 046	997 303
Dec	ember 2017				_
1	Loans	19 576	702 755	12 002	710 329
2	Debt securities		110 124		110 124
3	Off-balance-sheet exposures		190 254		190 254
4	Total	19 576	1 003 133	12 002	1 010 707

 $<sup>^1</sup>$  Allowances/impairments refers to impairments on loans and advances measured at amortised cost.

The table below shows a breakdown of the Nedbank Group banking book off-balance-sheet exposure by cluster and product at the end of 2017.

# NEDBANK GROUP OFF-BALANCE-SHEET EXPOSURE PER BUSINESS CLUSTER<sup>1</sup>

		Nedbank CIB,								
		excluding		Total	Nedbank			Rest		
Rm	Nedbank	Property	Property	Nedbank	Business	Nedbank	Nedbank	of		Nedbank
June 2018	CIB	Finance	Finance	RBB	Banking	Retail	Wealth	Africa	Centre	Group
Guarantees on behalf of clients	32 132	31 370	762	3 123	2 131	992	230	1 810		37 295
Letters of credit	2 401	2 401		284	223	61		166		2 851
Undrawn facilities, of which	94 791	92 159	2 632	63 481	20 480	43 001	5 315	2 987		166 574
irrevocable commitments	91 548	88 916	2 632	38 952	20 480	18 472³	5 009	1 833		137 342
revocable <sup>2</sup>	3 243	3 243		24 529		24 529³	306	1 154		29 232
Credit-derivative instruments	6 867	6 867								6 867
Total off-balance-sheet										
activities	136 191	132 797	3 394	66 888	22 834	44 054	5 545	4 963		213 587
June 2017										
Guarantees on behalf of clients	32 937	32 382	555	3 092	2 229	863	332	2 566		38 927
Letters of credit	2 927	2 927		404	336	68		202		3 533
Undrawn facilities, of which	73 862	69 685	4 177	62 789	20 883	41 906	5 228	2 981		144 860
irrevocable commitments	61 491	57 314	4 177	20 883	20 883		2 307	1 733		86 414
revocable <sup>2</sup>	12 371	12 371		41 906		41 906	2 921	1 248		58 446
Credit-derivative instruments	5 730	5 730								5 730
Total off-balance-sheet										
activities	115 456	110 724	4 732	66 285	23 448	42 837	5 560	5 749		193 050
December 2017										
Guarantees on behalf of clients	29 368	28 275	1 093	2 823	2 244	579	229	1 784		34 204
Letters of credit	2 610	2 610		369	331	38		219		3 198
Undrawn facilities, of which	79 808	75 198	4 610	64 962	22 326	42 636	5 270	2 812		152 852
irrevocable commitments	77 143	72 533	4 610	22 326	22 326		2 209	1 620		103 298
revocable <sup>2</sup>	2 665	2 665		42 636		42 636	3 061	1 192		49 554
Credit-derivative instruments	6 992	6 992								6 992
Total off-balance-sheet										
activities	118 778	113 075	5 703	68 154	24 901	43 253	5 499	4 815		197 246

 $<sup>^{\</sup>scriptsize 1}$  Values include intercompany exposures.

 $<sup>{\</sup>it ^2 Includes \ other \ contingent \ liabilities}.$ 

<sup>&</sup>lt;sup>3</sup> Revocable commitments for Nedbank Retail for June 2018 reflect irrevocable commitments of R18,5bn, following a reclassification of undrawn exposure in respect of Home Loans revolving facilities.

### **Defaulted loans and advances**

Nedbank Group's defaulted loans and advances have increased by 12,9% to R22,8bn and now represent 3,1% of total gross loans and advances due to the weakened economic environment, placing additional stress on specific wholesale counters, particularly in the construction and cement industries, and increases in performing defaults in the MFC portfolio in RBB.

CIB defaulted loans and advances increased to R5,1bn and now represent 1,5% of CIB's gross loans and advances.

RBB defaulted loans and advances increased by 4,1% to R15,7bn and remained stable at 4,8% of gross loans and advances due to portfolio growth.

MFC defaulted loans and advances increased by 24,2% to R3,8bn as a result of an increase in performing defaults.

Economic pressure resulted in RoA defaulted advances increasing to R1,2bn.

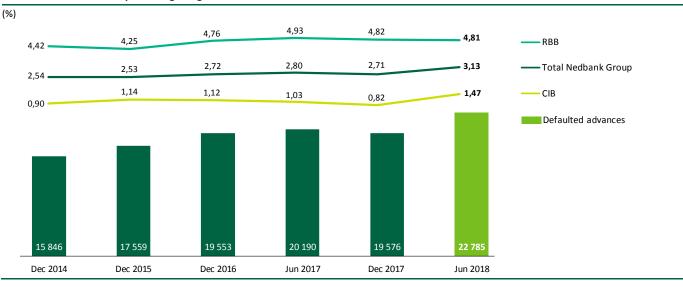
On each reporting date the group assesses whether there is objective evidence that a financial asset or group of financial assets is impaired. A financial asset or a group of financial assets is impaired and impairment losses are incurred if, and only if, there is objective evidence of impairment as a result of one or more events that occurred after the initial recognition of the asset (a loss event) and that loss event has (or events have) an impact on the estimated future cashflows of the financial asset.

For more information on defaulted loans and advances please refer to the Nedbank Group Limited Interim Results for the six months ended 30 June 2018.

#### **CR2: CHANGES IN STOCK OF DEFAULTED LOANS AND SECURITIES**

Rm		Jun 2018	Jun 2017	Dec 2017
1	Defaulted loans and debt securities at the end of the previous reporting period	19 576	19 553	19 553
2	Loans and debt securities defaulted since the last reporting period	10 890	10 266	17 689
3	Returned to non-defaulted status	(3 902)	(5 032)	(8 656)
4	Amounts written off	(2 387)	(2 307)	(4 675)
5	Other changes	(1 392)	(2 290)	(4 335)
6	Defaulted loans and debt securities at end of the reporting period	22 785	20 190	19 576

#### Defaulted advances as a percentage of gross loans and advances



BASEL III AIRB ON-BALANCE-SHEET EXPOSURE BY RESIDUAL CONTRACTUAL MATURITY

BASEL III AIRB ON-BALANCE-SHEET EXPOSORE BY RESIDUAL CONTR.			Greater than	Total on-balance-
Rm	Less than 1 year	1 to 5 years	5 years	sheet exposure
June 2018				
Corporate <sup>1</sup>	96 511	159 830	99 477	355 818
Public sector entities	12 043	1 601	7 893	21 537
Local governments and municipalities	94	2 875	5 479	8 448
Sovereign	65 161	22 234	38 921	126 316
Banks	12 880	6 847	114	19 841
Retail exposure	4 068	105 169	182 586	291 823
Retail mortgage	287	1 721	126 583	128 591
Retail revolving credit		15 977		15 977
Retail – other	2 620	71 304	37 921	111 845
SME – retail	1 161	16 167	18 082	35 410
Securitisation exposure	170		295	465
Total	190 927	298 556	334 765	824 248
June 2017				
Corporate <sup>1</sup>	89 214	173 374	88 739	351 327
Public sector entities	6 145	6 014	8 237	20 396
Local governments and municipalities	1 130	1 745	5 903	8 778
Sovereign	62 522	16 027	19 050	97 599
Banks	26 516	7 497	226	34 239
Retail exposure	3 680	100 193	170 150	274 023
Retail mortgage	202	1 410	120 357	121 969
Retail revolving credit		15 666		15 666
Retail – other	2 273	66 996	32 360	101 629
SME – retail	1 205	16 121	17 433	34 759
Securitisation exposure	854	46	688	1 588
Total	190 061	304 896	292 993	787 950
December 2017				
Corporate <sup>1</sup>	99 302	164 496	88 782	352 580
Public sector entities	6 807	5 070	8 006	19 883
Local governments and municipalities	1 302	1 417	5 670	8 389
Sovereign	64 154	13 547	21 730	99 431
Banks	16 408	5 854	45	22 307
Retail exposure	3 983	102 897	177 485	284 365
Retail mortgage	183	1 554	124 466	126 203
Retail revolving credit		15 601		15 601
Retail – other	2 543	69 928	35 159	107 630
SME – retail	1 257	15 814	17 860	34 931
Securitisation exposure	551		306	857

<sup>&</sup>lt;sup>1</sup> Includes corporate, small- and medium-sized enterprises (SME) – corporate and specialised lending asset classes.

The Nedbank Limited TSA Basel III on-balance-sheet exposure below relates to the Private Wealth International, the non-SA subsidiaries credit portfolios and some of the legacy Imperial Bank portfolio in Nedbank RBB.

BASEL III TSA ON-BALANCE-SHEET EXPOSURE BY RESIDUAL CONTRACTUAL MATURITY

			Greater than	Total on-balance-sheet
Rm	Less than 1 year	1 to 5 years	5 years	exposure
June 2018				
Corporate <sup>1</sup>	5 446	3 215	581	9 242
Public sector entities	36	283	83	402
Local governments and municipalities	2	22	17	41
Sovereign	10 324	3 912	17	14 253
Banks	8 641	3 810		12 451
Retail exposure	8 050	4 744	7 455	20 249
Retail mortgage	5 889	191	6 643	12 723
Retail revolving credit	61	1 457	199	1 717
Retail – other	1 086	1 580	83	2 749
SME – retail	1 014	1 516	530	3 060
Total	32 499	15 986	8 153	56 638
June 2017				
Corporate <sup>1</sup>	2 537	2 849	897	6 283
Public sector entities	2	275	92	369
Local governments and municipalities	1	31	15	47
Sovereign	6 379	4 754	1	11 134
Banks	13 048	3 132		16 180
Retail exposure	6 113	5 785	8 406	20 304
Retail mortgage	5 172	210	7 537	12 919
Retail revolving credit	38	1 361	236	1 635
Retail – other	856	2 936	107	3 899
SME – retail	47	1 278	526	1 851
Total	28 080	16 826	9 411	54 317
December 2017				
Corporate <sup>1</sup>	4 084	3 649	785	8 518
Public sector entities	40	278	101	419
Local governments and municipalities	2	21	11	34
Sovereign	8 075	5 150		13 225
Banks	6 339	3 107		9 446
Retail exposure	6 539	6 536	7 307	20 382
Retail mortgage	5 167	184	6 414	11 765
Retail revolving credit	56	1 751	254	2 061
Retail – other	421	3 304	100	3 825
SME – retail	895	1 297	539	2 731
Total				

<sup>&</sup>lt;sup>1</sup> Includes corporate and SME – corporate and specialised lending asset classes.

### **Debt counselling**

The portfolio balance increased by 6,4% to R8 831m (June 2017: R8 298m) and the number of accounts in debt counselling increased by 0,7% to 130 008 (June 2017: 129 062). Growth in the debt counselling book is in line with the industry and the debt-counselling market share remained stable year on year.

The analysis below shows the Nedbank Retail debt-counselling portfolio, including new applications (year to date) and portfolio balance.

#### NEDBANK RETAIL SUMMARY OF THE DEBT-COUNSELLING PORTFOLIO

	New applications						Portfolio balance					
	Jun 2	018	Jun 2	2017	Dec 2	2017	Jun 2	2018	Dec 2	2017	Jun 2	017
	Number		Number		Number		Number		Number		Number	
	of	Exposure	of	Exposure	of	Exposure	of	Exposure	of	Exposure	of	Exposure
Product	accounts	Rm	accounts	Rm	accounts	Rm	accounts	Rm	accounts	Rm	accounts	Rm
Mortgages	862	385	1 045	458	2 012	864	6 467	2 517	6 011	2 299	6 275	2 400
Vehicle and asset												
finance	4 829	307	4 861	739	9 711	1 491	30 055	3 837	26 175	3 122	27 245	3 449
Unsecured												
lending	11 268	473	13 022	500	24 649	947	48 031	1 818	48 437	1 770	48 927	1 802
Card	11 137	178	12 913	196	24 878	376	41 355	638	40 663	593	42 677	626
Overdrafts	2 028	7	2 150	9	4 112	15	4 100	21	3 930	22	3 938	21
Total	30 124	1 350	33 991	1 902	65 362	3 693	130 008	8 831	125 216	7 806	129 062	8 298

### **Credit risk mitigation**

Credit risk mitigation (CRM) refers to the actions that can be taken by a bank to manage its exposure to credit risk to align such exposure to its risk appetite. This action can be proactive or reactive and the level of mitigation that a bank desires may be influenced by external factors such as the economic cycle or internal factors such as a change in risk appetite.

References to CRM normally focus on the taking of collateral as well as the management of such collateral. While collateral is an essential component of CRM, there are a number of other methods used for mitigating credit risk.

The Nedbank Group Credit Policy acknowledges the role played by CRM in the management of credit risk, but emphasises that collateral on its own is not necessarily a justification for lending. The primary consideration for any lending opportunity should rather be the borrower's financial position and ability to repay the facility from own resources and cashflow.

TSA for credit risk allows for the use of certain categories of collateral to reduce exposures prior to the risk weighting thereof, subject to suitable haircuts being applied to the value of such collateral. Under the AIRB Approach banks are allowed to utilise the value of collateral in their own estimates of LGD, which directly influences the risk weighting.

Financial or other collateral, credit derivatives, netting agreements, put and call options, hedging and guarantees are all commonly used to reduce exposure. The amount and type of CRM is dependent on the client, product or portfolio categorisation.

Credit derivatives are transacted with margined counterparties or, alternatively, protection is procured through the issue of credit-linked notes.

The bank monitors the concentration levels of collateral to ensure that it is adequately diversified. Processes and procedures are in place to monitor concentration risk that may arise from collateral, irrespective of whether exposures are on the AIRB Approach or TSA.

The following collateral types are common in the marketplace:

- Retail portfolio
  - Mortgage lending secured by mortgage bonds over residential property.
  - Instalment credit transactions secured by the assets financed.
  - Overdrafts either unsecured or secured by guarantees, suretyships or pledged securities.
- Wholesale portfolio
  - □ Commercial properties supported by the property financed and a cession of the leases.
  - ☐ Instalment-credit-type transactions secured by the assets financed.
  - Working capital facilities being secured, usually by either a claim on specific assets (fixed assets, inventory and debtors) or other collateral such as guarantees.
  - □ Term and structured lending, relying on guarantees or credit derivatives (where only internationally recognised and enforceable agreements are used).
  - □ Credit exposure to other banks with risks commonly being mitigated by using financial collateral and netting agreements.

### Collateral valuation and management

The valuation and management of collateral across all business units of the group are governed by the Group Credit Policy. In the wholesale portfolio collateral is valued at the inception of a transaction and reviewed at least annually during the life of the transaction, usually as part of the facility review, which includes a review of the security structure and covenants to ensure that proper title is retained over collateral.

Collateral valuations in respect of retail mortgage portfolios are updated using statistical indexing models, data published by service providers is used in the case of motor vehicles, while a physical inspection is performed for other types of collateral. Physical valuations are performed biannually on the defaulted book. Physical valuations are performed on approximately 50% of new applications. The remainder of new applications are valued using desktop valuations, which are regularly backtested with physical valuations.

Where credit intervention is required, or in the case of default, all items of collateral are immediately revalued. In such instances a physical inspection by an expert valuer is required. This process also ensures that an appropriate impairment is timeous.

Residential-and commercial-property collateral exist in the asset classes SME – retail and Retail – other. This is due to both commercial and residential mortgage lending to small and medium businesses in Business Banking and Nedbank Wealth.

The financial collateral reported under the bank's asset class largely relates to collateral posted under International Swaps and Derivatives Association derivative netting agreements and repurchase and resale agreements.

CR3: AIRB and TSA CREDIT RISK MITIGATION TECHNIQUES - OVERVIEW

Rm		Exposures unsecured: carrying amount	Exposures secured by collateral	Exposures secured by collateral, of which: secured amount	Exposures secured by financial guarantees	Exposures secured by financial guarantees, of which: secured amount	Exposures secured by credit derivatives	Exposures secured by credit derivatives, of which: secured amount
June	2018							
1	Loans	287 454	425 214	416 701	10 082	6 594		
2	Debt securities	131 089	6 095	6 095				
3	Total	418 543	431 309	422 796	10 082	6 594		
4	of which defaulted	2 676	10 664	10 562	283	283		
June	2017							
1	Loans	291 298	418 566	413 487	15 292	7 755		
2	Debt securities	109 501						
3	Total	400 799	418 566	413 487	15 292	7 755		
4	of which defaulted	2 639	9 358	8 692	458	254		
Dec	ember 2017							
1	Loans	291 288	419 041	411 046	17 437	6 583		
2	Debt securities	105 699	4 425	4 425				
3	Total	396 987	423 466	415 471	17 437	6 583		
4	of which defaulted	1 717	9 595	9 274	384	250		

Growth in exposures secured by collateral was largely due to book growth across all major asset classes, in particular in the commercial-property portfolio in Nedbank Property Finance and Home Loans in Nedbank Retail.

# Credit risk exposure under TSA

Within Nedbank Group the Fairbairn Private Bank (UK), and the non-SA subsidiaries credit portfolios and some of the legacy Imperial Bank portfolio in Nedbank RBB remain on TSA.

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

RWA density  RWA density  72,32  71,25  40,55
72,32 71,25
72,32 71,25
72,32 71,25
71,25
71,25
40,55
40,55
117,35
78,89
39,61
72.53
72,57
66,09
78,03
89,87
27,05
155,00
71,27
52,08
62,54
73,75
70,22
55,47
91,66
68,11
47,25
, -
F0 00
52,08
67,69

<sup>&</sup>lt;sup>1</sup> Total RWA excludes CCR RWA.

<sup>&</sup>lt;sup>2</sup> RWA density is total RWA to EAD post-CRM and post CCF.

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

		Risk weight								
Rm Asse	t classes	0%	10% 20%	35%	50%	75%	100%	150%	Others	Total credit exposures amount (post-CCF and post- CRM)
	2018	0,0	2070 2070	3370	3070	7570	10070	13070	Others	Chiny
1	Sovereigns and their central banks	5 594			2 082		1 209	5 374		14 259
2	Non-central government public sector entities	3 334			300		165	22		487
3	Multilateral development banks				300		103			-107
4	Banks	522	7 127		2 388		2 432	4		12 473
5	Securities firms									
6	Corporates				94		5 690	3 215		8 999
7	Regulatory retail portfolios	114		178	689	5 645	2 775	1		9 402
8	Secured by residential property			12 642	52	483	674			13 851
9	Secured by commercial real estate									
10	Equity									
11	Past-due loans									
12	Higher-risk categories									
13	Other assets	403	212				1 244			1 859
14	Total	6 633	7 339	12 820	5 605	6 128	14 189	8 616		61 330
June	2017									
1	Sovereigns and their central banks	3 741			1 376		1 564	4 137		10 818
2	Non-central government public sector entities				242		231	150		623
3	Multilateral development banks	1 711								1 711
4	Banks	2 589	9 629		2 997		745	1 024		16 984
5	Securities firms									
6	Corporates		15		4		5 109	2 348		7 476
7	Regulatory retail portfolios		1 170	78	18	8 712	185	14		10 177
8	Secured by residential property			7 041	18	6 370	725			14 154
9	Secured by commercial real estate									
10	Equity									
11	Past-due loans									
12	Higher-risk categories									
13	Other assets	417	444				845			1 706
14	Total	8 458	11 258	7 119	4 655	15 082	9 404	7 673		63 649
Dece	mber 2017									
1	Sovereigns and their central banks	5 199			1 739		1 100	5 191		13 229
2	Non-central government public sector entities	2	54		256		193	29		534
3	Multilateral development banks									
4	Banks	767	2 361		2 003		2 492	278		7 901
5	Securities firms									
6	Corporates				3 714		4 755	1 973		10 442
7	Regulatory retail portfolios	86	1 547	107	3	8 570	744	13		11 070
8	Secured by residential property			7 756	103	2 000	740			10 599
9	Secured by commercial real estate									
10	Equity									
11	Past-due loans									
12	Higher-risk categories									
13	Other assets	480	255				757			1 492
14	Total	6 534	4 217	7 863	7 818	10 570	10 781	7 484		55 267

50

### **Implementation of IFRS 9: Financial Instruments**

IFRS 9 and IFRS 15 were implemented by the group from 1 January 2018.

IFRS 9 replaces IAS 39 and sets out the updated requirements for the recognition and measurement of financial instruments. These requirements specifically deal with the classification and measurement of financial instruments, measurement of impairment losses based on an expected credit loss model (ECL), and closer alignment between hedge accounting and risk management practices.

IFRS 15 replaces all existing revenue recognition requirements in IFRS and applies to all revenue arising from contracts with clients, unless the contracts are in the scope of the standards on leases, insurance contracts and financial instruments.

#### IFRS 9 - KEY COMPONENTS OF THE ACCOUNTING STANDARD

De	termines whether an asset is subject to impairment or	rnot
Classification and measurement	Hedge accounting	Expected credit losses
Financial assets  Business model for managing financial assets (business level).  Contractual cashflow characteristics (instrument level).  Financial liabilities  Financial liabilities same as under IAS 39, except treatment of FV changes on own credit risk.	<ul> <li>Hedge accounting more aligned with risk management.</li> <li>A dynamic risk management hedge accounting model to replace macro hedge accounting still under discussion by the IASB, with an update expected in 2019. IFRS 9 provides options for IAS 39 hedge accounting (general and macro) to continue to be applied or for the adoption of the IFRS 9 model (general only), because the dynamic risk management hedge accounting model has not yet been completed.</li> <li>Nedbank elected to adopt the IAS 39 hedge accounting model (general and macro).</li> </ul>	<ul> <li>ECLs rather than incurred credit losses under IAS 39.</li> <li>Account for either 12-month ECLs or lifetime credit losses, depending on credit deterioration from origination.</li> <li>Inclusion of off-balance-sheet exposures.</li> <li>Inclusion of a forward-looking macroeconomic overlay.</li> </ul>

## IFRS 9 effective 1 January 2018

#### **SUMMARY IMPACT OF THE TRANSITION TO IFRS 9 AND IFRS 15**

		Other	
	Decrease in	changes	Net decrease
	net loans and	including	in total
Rm	advances	taxation	equity
(A) IFRS 9: Impairments	2 752	(617)	2 135
(B) to (E) IFRS 9: Classification and measurement	504	(441)	63
(B) Hedge accounting	297	(192)	105
(C) FVOCI	(820)	227	(593)
(D) FVTPL business model and contractual cashflows	369	(292)	77
(E) Review of effective-interest-rate guidance	658	(184)	474
(F) IFRS 9: ETI		780	780
(G) IFRS 15: Revenue		254	254
Total impact of IFRS 9 and IFRS 15	3 256	(24)	3 232

The above summary presents selected impacts on net loans and advances and equity. Other changes includes the impact of ECL raised on non-loans and advances, provision for ECL on off-balance-sheet amounts, current and deferred tax, ETI and IFRS 15.

### OVERVIEW OF IFRS 9 AND 15 CHANGES ON THE CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME

					'New-				
				Suspended	business	Initiation	Loyalty		
	Jun	Jun	(%)	interest <sup>1</sup>	strain <sup>12</sup>	fees <sup>3</sup>	Schemes <sup>4</sup>	Adjusted	(%)
Rm	2018	2017	change	(IFRS 9)	(IFRS 9)	(IFRS 9)	(IFRS 15)	Jun 2018	change
NII	14 006	13 548	3,4	192		(141)		14 057	3,8
Impairments	1 815	1 594	13,9	192	(101)			1 906	19,6
NIR	12 236	11 730	4,3			126	145	12 507	6,6
Expenses	14 756	14 369	2,7				124	14 880	3,6
Headline earnings	6 696	5 271	27,0		73	(11)	15	6 773	28,5
ROE (excluding GW) (%)	18,4	15,1						17,8 <sup>5</sup>	
NIM (%)	3,67	3,58						3,67	
CLR (%)	0,53	0,47						0,56	
Efficiency ratio (%)	55,8	59,3						55,6	

<sup>&</sup>lt;sup>1</sup> Suspended interest on the non-recoverable portion of the specific defaulted book is no longer recognised as NII, for which impairments were previously raised (RBB: R181m and CIB: R11m).

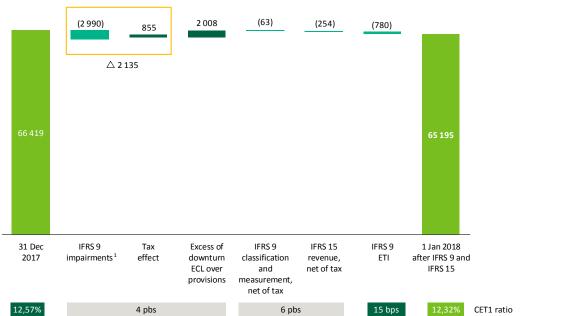
<sup>&</sup>lt;sup>2</sup> 'New-business strain' impact of higher levels of portfolio provisions raised on new loans under IFRS versus IAS 39 (RBB) and adjusting for base effects from overlay releases in the unsecured portfolio.

<sup>&</sup>lt;sup>3</sup> Initiation fees previously recognised as NIR are now amortised to NII through the effective-interest-rate method (RBB).

<sup>&</sup>lt;sup>4</sup>Loyalty schemes - costs of the rewards programme were previously recognised as an expense and are now recognised as a reduction in NIR (RBB).

<sup>&</sup>lt;sup>5</sup> Excludes the day one R3,2bn adjustment.





<sup>1</sup> R2 990m consists of R2 752m against loans and advances, R33m against non-loans and advances and R205m as a provision against off-balance-sheet items.

As indicated at 31 December 2017, implementation of IFRS 9 and IFRS 15 on 1 January 2018 was estimated to impact our CET1 ratio by less than 20 bps, excluding the impact of ETI. Our final transitional impact is 25 bps on our CET1 ratio at 1 January 2018, inclusive of the 15 bps arising from our share of ETI's own transitional IFRS 9 impact. SARB: PA's Directive 5/2017 provided for an optional three-year phase-in period of the day one IFRS 9 impact. The group has elected a full phase-in of the day one impact.

#### **OVERVIEW OF CLASSIFICATION AND MEASUREMENT**

Under the 'classification and measurement' component of IFRS 9 an asset can be held at either amortised cost, fair value through other comprehensive income (FVOCI) or fair value through profit or loss (FVTPL), which, based on the asset classification, have different treatments for impairments on the income statement and statement of financial position, as set out below:

	Business models for managing financial assets	
Amortised cost	Fair value through other comprehensive income	Fair value through profit or loss
Held-to-collect business model	Held-to-collect-and-sell business model	Residual
Objective to collect contractual cashflows over	Both collecting contractual cashflows and sales	Business model is neither a held-to-collect
ife of loan.	are integral to business model.	business model nor a held-to-collect-and-sell
Infrequent or insignificant sales incidental to	More frequent and/or significant level of sales,	business model.
objective of business model.	however, not trading.	<ul> <li>Collection of contractual cashflows are</li> </ul>
Sales consistent with objective if in response to		incidental to the objective of the model.
credit deterioration (sale of NPL assets).		
RBB (eg home loans and overdrafts).	Nedbank has identified an originate-to-	Trading books.
Corporate loans.	distribute portfolio in CIB, which is classified in	Derivatives and equities.
Corporate property finance.	FVOCI.	Long-term and short-term insurance
		businesses.
Treatment of impairments, fair	value and interest income based on the business mod	del for managing financial assets
Amortised cost	Fair value through other comprehensive income	Fair value through profit or loss
	Statement of financial position	
Balance sheet impairments separately	Impairments calculated, but not deducted from	No balance sheet impairments.
disclosed and deducted from gross asset value.	gross asset value, ie ECL allowance recognised	
	in equity.	
	Income statement	
Interest income recognised in NII on an effective-interest-rate basis.	Interest income recognised in NII on an effective-interest-rate basis.	No income statement impairments as include in fair-value gains or losses.
Movement in ECL allowance booked as income	Changes in ECL recognised as income	iii iaii-value gailis of losses.
statement impairment.	statement impairment. However, an ECL	
, , , , , , , , , , , , , , , , , , ,	allowance is not deducted from gross loans and	
	advances because FVOCI loans are measured at	
	fair value on the statement of financial	
	position. Fair value	
Net andiable fairuslys is any ideal and a	1 1 1 1	Description on the halones shout at frinciples
Not applicable – fair value is provided only as note disclosure for assets held at amortised	<ul> <li>Recognised on the balance sheet at fair value.</li> <li>Changes in fair value recognised through other</li> </ul>	<ul> <li>Recognised on the balance sheet at fair value</li> <li>Changes in fair value recognised in profit or</li> </ul>
cost.	comprehensive income in a separate reserve in	loss (NIR).
On sale/distribution of assets the difference	equity.	,.
between the sales price and the amortised cost	On sale/distribution of assets the difference	
balance is recognised in profit or loss, though	between the sales price and the amortised cost	
sales must be infrequent or insignificant.	balance is recognised in profit or loss, ie fair-	
	value gains or losses recycled.	

#### **OVERVIEW OF IFRS 9 IMPAIRMENTS**

The main objective of the new impairment requirements is to replace the backward-looking incurred-loss model under IAS 39 with a forward-looking ECL model to address concerns raised during the global financial crisis that banks raised impairments 'too little, too late'. These ECL estimates need to incorporate forward-looking information, such as macroeconomic forecasts, which will need to be updated at each reporting date to reflect changes in the credit risk of the underlying financial instrument.

IFRS 9 also introduces a classification of financial assets in three different stages, which determine the ECL quantification approach:

- **Stage 1:** Financial assets without objective evidence of impairment, for which the credit risk at the reporting date has not significantly increased since initial recognition.
- Stage 2: Financial assets without objective evidence of impairment, for which the credit risk at the reporting date has significantly increased since initial recognition.
- **Stage 3:** Financial assets with objective evidence of impairment.

Financial assets in stage 1 will be subject to a 12-month ECL, ie ECLs on possible default events in the next 12 months from the reporting date, whereas financial assets in stage 2 will be subject to a (higher) lifetime ECL, ie ECLs on any possible default event between the reporting date and the end of the lifetime of the financial asset.

Financial assets in stage 3 are also subject to a lifetime ECL. However, ECL is based on the difference between the gross carrying amount of the asset and the present value of estimated future cashflows, including expected realisations of any security held, discounted at the original effective interest rate of the financial asset, as the asset is already in default.

The IFRS 9 standard provides some guidance regarding the dimensions for assessing whether or not there has been a significant increase in credit risk since initial recognition, but each bank will be required to specify its own definition, which may differ by portfolio.

Objective evidence that a financial asset or group of assets is impaired includes observable data that comes to the attention of the group about the following events:

- Significant financial difficulty of the issuer or obligor.
- A breach of contract, such as a default or delinquency in respect of interest or principal payments.
- The group granting to the borrower, for economic or legal reasons relating to the borrower's financial difficulty, a concession that the group would not otherwise consider.
- The probability arising that the borrower will enter bankruptcy or other financial reorganisation.
- The disappearance of an active market for that financial asset because of financial difficulties.
- Indications that there is a measurable decrease in the estimated future cashflows from a group of financial assets since the initial recognition of those assets, although the decrease cannot yet be identified with the individual financial assets in the group, including:
  - adverse changes in the payment status of borrowers in the group; or
  - national or local economic conditions that correlate with defaults on the assets in the group.

Nedbank's IFRS 9 implementation accounts for supervisory guidance provided by the BCBS guidance document on credit risk and accounting for ECL, which outlines the basic principles of supervisory requirements for sound credit risk practices associated with the implementation and ongoing application of ECL accounting models and the supervisory evaluation of credit risk, as well as by the corresponding SARB: PA Guidance Note 3/2016.

Change in credit quality since initial recognition							
Stage 1	Stage 2	Stage 3					
	Recognition of expected credit losses						
12-month expected credit losses	Lifetime expected credit losses	Lifetime expected credit losses (100% PD)					
ECLs that result from possible default events within 12 months.	Lifetime ECLs that result from possible default events over the life of the loan/financial instrument.	Lifetime ECLs based on the difference between the gross carrying amount of the asset and the present value of estimated future cashflows, including expected realisations of any security held, discounted at the original effective interest rate of the financial asset, as the asset is already in default.					
Performing	Underperforming	Non-performing (defaulted)					
Initial recognition and improved credit quality.	Assets with significant increase in credit risk since initial recognition.	Credit-impaired assets.					

Portfolio impairments	Portfolio impairments	Specific impairments
Gross NII	Gross NII	Net NII (interest in suspense)
Interest income recognised on the gross carrying	Interest income recognised on the gross carrying	Interest income recognised on the net carrying amount
amount of the asset. ECL on unpaid interest	amount of the asset. ECL on unpaid interest	of the asset, ie gross carrying amount less stage 3 ECL.
income recognised in impairment.	income recognised in impairment.	Essentially, interest on the non-recoverable portion of
		the specific defaulted book is no longer recognised as
		interest income (interest in suspense). While IFRS 9
		requires that the irrecoverable portion of interest is not
		recognised (suspended) as interest income and
		consequently impairment losses, IFRS 9 requires that
		the gross carrying amount of loans and advances
		continue to increase with respect to accrued but
		unpaid interest. Any accrued but unpaid interest which
		is not expected to be recovered is included in the
		calculation of the loss allowance.

#### **METHODOLOGICAL DIFFERENCES BETWEEN IAS 39 AND IFRS 9 IMPAIRMENTS**

The generic methodological differences between EL estimation, IAS 39 and IFRS 9 impairments are summarised in the table below:

Key parameters	Basel III	IAS 39	IFRS 9
PDs			
Intention of estimate	<ul> <li>Average estimate of default within next 12 months.</li> </ul>	<ul> <li>Best estimate of likelihood and timing of credit losses over the loss identification period.</li> </ul>	<ul> <li>12-month or lifetime ECLs depending on credit quality of the asset (including fully performing loans).</li> </ul>
Period of measurement	■ Long-run historical average over whole economic cycle – TTC.	<ul> <li>Should reflect current economic conditions – PIT.</li> </ul>	Reflects current and future economic cycles to the extent relevant to the remaining life of the loan on a point-in- time basis.
LGDs			
Intention of estimate	<ul> <li>Average estimate of the discounted value of postdefault recoveries.</li> </ul>	<ul> <li>Current estimate of the discounted value of postdefault recoveries.</li> </ul>	<ul> <li>Estimate of the discounted value of postdefault recoveries. The measurement period is dependent on the relevant performance of the asset.</li> </ul>
Treatment of collection costs	<ul> <li>Recoveries net of direct and indirect collection costs.</li> </ul>	Recoveries net of direct cash collection costs only.	Recoveries net of direct cash collection costs only.
Discount rate	Recoveries discounted using the bank's CoE.	<ul> <li>Cashflows discounted using instrument's original effective interest rate.</li> </ul>	<ul> <li>Cashflows are discounted at a discount rate that approximates the original effective interest rate. This discount rate is not changed because of impairment.</li> </ul>
Period of measurement	<ul><li>Reflecting period of high credit losses.</li><li>Downturn loss given default (dLGD) required.</li></ul>	Should reflect current economic conditions – PIT.	Reflects current and future economic cycles to the extent relevant to the remaining life of the loan.
EL			
Basis of exposure	<ul> <li>EAD, which includes unutilised and contingent facilities.</li> </ul>	Based on actual exposure (on balance sheet).	Based on EAD, which includes unutilised and contingent facilities.

The key differences between IFRS 9 and IAS 39 that impact portfolio impairments on adoption of IFRS 9 are as follows:

- Under IAS 39 the PD is subject to an emergence period that varies by portfolio, whereas under IFRS 9:
  - for stage 1 an ECL is derived using 12-month PDs; and
  - of for exposures that have been subject to a significant increase in credit risk, a lifetime ECL is calculated based on lifetime PD estimates.
- Further, IAS 39 is based on loans and advances only, while IFRS 9 uses EAD similar to Basel capital requirements and includes off-balance-sheet exposures (eg unutilised facilities or contingent exposures).

A final key difference impacting portfolio impairments after adoption of IFRS 9 is moving from a backward-looking incurred-loss approach to a forward-looking EL approach:

IAS 39 reflects current economic conditions at a PIT, while IFRS 9 requires consideration of current and forecast economic conditions.

As credit RWA for defaulted exposures is based on the difference between specific impairments [or best estimate of expected loss (BEEL)] and dEL, any change to the specific impairments under IFRS 9 will have an impact on credit RWA for defaulted exposures.

### **COMPARATIVE PERIODS**

As permitted by the transitional provisions of IFRS 9, the group has elected not to restate comparative figures. Therefore, information in this report for the period ended 31 December 2017 is presented on the basis calculated in terms of IAS 39.

To provide comparability to IAS 39 the group compares the total of stage 1 and stage 2 ECLs against IAS 39 portfolio provisions. Stage 3 is based on Nedbank's definition of default, which remains unchanged. Therefore, stage 3 ECLs are comparable with specific impairments raised under IAS 39.

#### **DETAILED IMPACTS**

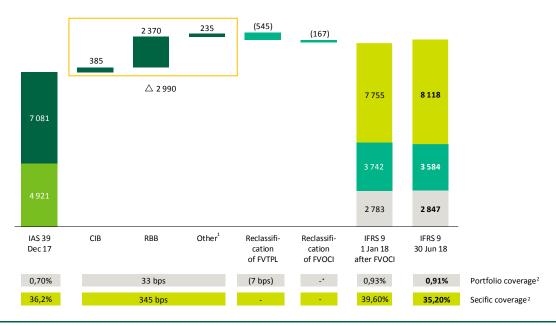
#### IFRS 9 IMPAIRMENTS - IMPACT OF ECL MODEL (R2 135M NET OF TAX)

IFRS 9 impairments transitional impacts per balance sheet line are as follows:

	Rm
Loans and advances	2 752
Cash, government and other securities, and derivative financial instrument	17
Other assets	16
Provision for off-balance-sheet exposures	205
Impact of ECL model, before tax	2 990
Taxation	(855)
Impact of ECL model, after tax	2 135

#### **Group balance sheet impairments**





<sup>&</sup>lt;sup>1</sup> Other represents ECLs on non-loans and advances reported in the Centre and impairment increases in Wealth and RoA.

The main contributors to the group's R2 990m ECL impact have been RBB (R2 370m) and CIB (R385m), for which we provide an additional analysis below. The ECL impact is illustrated after reclassification of certain deals in FVTPL, as further explained in part (D). In addition, a portion of the ECL impact relates to a FVOCI portfolio as further explained in part (C).

#### Inclusion of forward-looking economic expectations in the ECL model

A key component of the new IFRS 9 impairment framework is the inclusion of forward-looking (macroeconomic) information in the determination of future ECLs. Nedbank's macroeconomic forecasts for IFRS 9 are approved by the Group Alco and the Group Credit Committee.

The IFRS 9 macroeconomic forecasts are reviewed quarterly, aligned with SARB: PA's Monetary Policy Committee meetings. Additional ad hoc reviews will be performed in the event of significant change in the economic climate.

The macroeconomic forecast includes four scenarios: a base case, a mild-stress case, a high-stress case and a positive case. Each scenario is assigned an appropriate probability, based on its likelihood of occurring relative to the base scenario.

The key macroeconomic variables included in the forecast are: GDP growth, the prime rate forecast, the household debt-to-income ratio and credit growth.

The impact of macroeconomic factors is included on a probability-weighted basis firstly by determining whether the credit risk of the loan has increased significantly since origination and secondly, once it has been determined whether 12-month ECL (stage 1) or lifetime ECL (stage 2) applies, by adjusting the ECL for the macroeconomic forecast on a probability-weighted basis.

#### Tax treatment of IFRS 9 ECL (R855m current and deferred-tax impact)

The tax treatment of IFRS 9 below largely reflects the impact on Nedbank Limited from an SA tax perspective. The tax impact of IFRS 9 ECL attributable to other subsidiaries mostly affects deferred tax.

Historically, Nedbank Limited has deducted allowances on credit loss impairment provisions in accordance with the SARS ruling applicable to banks in order to determine cash tax payable. In terms of this ruling Nedbank Limited was entitled to claim 25% of the 'incurred but not reported' impairment provision, 80% of the 'portfolio-specific' impairment provision, and 100% of the specific impairment provision. However, this claim was reduced by a present-value factor. The tax amount that was not deducted for tax purposes was recognised as a deferred tax asset.

<sup>&</sup>lt;sup>2</sup> Coverage excludes R205m (30 June 2018: R279m) reported as a liability for off-balance-sheet ECL. R18bn of gross loans and advances (R18bn: 1 January 2018) classified in FVOCI are excluded from the coverage calculation as FVOCI ECLs are not recognised in balance sheet impairments.

<sup>\*</sup> Less than 1 bps.

The revised tax legislation refers to IFRS 9, in terms of which Nedbank will be able to claim a tax deduction equal to 25% of the stage 1 ECL allowance, 40% of the stage 2 ECL allowance and 85% of the stage 3 ECL allowance. It is important to note that there is no reduction for a present-value factor in the new legislation. This results in an overall reduction of current tax payable in 2018 of R450m.

The total current and deferred-tax adjustment for ECL is R855m, with R405m recognised as a deferred tax asset. The deferred tax asset represents the difference between the accounting ECL allowance and the deduction allowed under the revised tax regime multiplied by the current corporate tax rate.

#### Writeoff and postwriteoff recoveries

IFRS 9 provides more detailed guidance on the point at which a loan and advance should be written off. In terms of IFRS 9 a loan and advance is written off when the group has no reasonable expectations of recovering the asset partially or in its entirety. This assessment is judgemental and includes both qualitative and quantitative information, including trends based on historical recoveries.

The implementation of IFRS 9 has resulted in an opening adjustment to balance sheet impairments to take into account the net impact of removing the benefit of postwriteoff recoveries and amending the point of writeoff. This will result in an increase in balance sheet impairments and a corresponding increase in defaulted advances as loans need to be retained on the balance sheet for a longer period under the IFRS 9 writeoff guidance. The change in point of writeoff will over time increase our specific coverage ratio and defaulted loans and advances as a percentage of gross loans and advance. However, this will not have a significant impact on net loans and advances and headline earnings. The revised points of writeoff are currently subject to review and will be implemented later in the financial year. The IFRS 9 writeoff requirements are applied prospectively from 1 January 2018, ie amounts written off under IAS 39 are not reassessed based on the IFRS 9 criteria.

#### IFRS 9 CLASSIFICATION AND MEASUREMENT (R63M NET OF TAX)

The group has implemented the following on adoption of IFRS 9:

- Revocation of the fair value through profit or loss designation for certain loans and advances, amounts owed to depositors and long-term debt instruments to facilitate the implementation of macro fair-value hedge accounting of interest rate risk and hedge accounting of inflation risk
- Reclassification of certain loans from amortised cost to FVOCI and FVTPL to align with the business-model-driven classifications of IFRS 9.
- Review of the effective-interest-rate calculation for certain loans based on the additional guidance provided in IFRS 9.

#### HEDGE ACCOUNTING - REVOCATION OF THE FAIR VALUE THROUGH PROFIT OR LOSS DESIGNATION (R105M NET OF TAX)

Fixed-rate advances and deposit exposures, with the exception of personal loans and retail fixed deposits, managed with interest rate derivatives have historically (under IAS 39) been designated as FVTPL in order to align the accounting treatment of our hedge packages with the risk management thereof. However, the designation of loans, deposits and our own long-term debt as FVTPL causes unintended consequences as the change in fair value of the loan or deposit includes changes in credit, liquidity and other risks, which are not hedged through interest rate derivatives.

The implementation of IFRS 9 allowed Nedbank to change the accounting designation of assets and liabilities previously designated as FVTPL to amortised cost, which facilitated the implementation of macro fair-value hedge accounting. On initial application of IFRS 9 on 1 January 2018 Nedbank elected to revoke the existing designation of R62bn of loans and R60bn of deposits and long-term debt classified in FVTPL under the fair-value option of IAS 39 and reclassified the underlying assets and liabilities as amortised cost.

In terms of IFRS 9 any cumulative difference between the fair value and amortised cost of the assets and liabilities at 31 December 2017 should be recognised through retained earnings, except where it is impracticable to recalculate the effective interest rate retrospectively, in which case the fair value of the financial asset or financial liability is deemed to be the gross carrying value at the date of initial application.

Nedbank's decision to revoke the FVTPL classification on 1 January 2018 increased government and other securities by R39m, decreased loans and advances by R297m and decreased amounts due to depositors by R112m. Nedbank implemented macro fair-value hedge accounting for fixed-rate exposures (loans and advances, bonds and deposits) that are centrally risk-managed with interest rate derivatives from 1 January 2018

Subsequent to the transition, changes in the fair value of fixed-rate exposures due to changes in interest rate risk have been recognised in loans and advances (R808m decrease in fair value) and deposits (R272m decrease in fair value), with the associated gain or loss recognised in profit or loss. The macro fair-value hedge accounting adjustment is reported as a separate line in the Centre within loans and advances and amounts due to depositors because of the portfolio nature of the risk management of interest rate risk in the banking book.

The amount recognised in profit or loss is offset by the net fair-value gain of R506m on the designated interest rate derivatives utilised to hedge interest rate risk. For the period to 30 June 2018 the macro fair-value hedge accounting resulted in a net R30m fair-value loss, being the ineffective portion of the hedge accounting that is reported in NIR. The macro fair-value hedge accounting has reduced income statement volatility arising from previous accounting mismatches.

Personal loans and retail fixed deposits have historically (under IAS 39) been carried at amortised cost due to fair-value limitations as a result of the large number of accounts involved, resulting in an accounting mismatch as the associated interest rate hedging instruments have been carried at fair value through profit or loss. The accounting mismatch on personal loans and retail fixed-deposits portfolios that existed before 1 January 2018 has been removed with the implementation of macro fair-value hedge accounting.

# Tax treatment of FVTPL reclassifications (R31m current and deferred-tax impact – due to revocation of FVTPL designation and reclassification of certain loans to FVTPL)

Section 24JB of the Income Tax Act aligns tax and accounting with regard to the measurement of financial assets and liabilities that are measured at fair value though profit or loss.

Section 24JB has been revised to include the reclassification of financial instruments due to the implementation of IFRS 9. Where financial assets and liabilities are reclassified in terms of section 24JB (for example previously held at amortised cost and then reclassified in FVTPL), there is a deemed disposal for income tax purposes.

#### IFRS 9 IMPACT ON INVESTMENT IN ETI (R780M NET OF TAX)

The group's IFRS 9 transitional impact includes R780m related to our 21,2% share of ETI's IFRS 9 transitional adjustment of US \$299,3m, translated at the 31 December 2017 closing spot ZAR/USD exchange rate.

	Dec 2014	Dec 2015	Dec 2016	Jun 2017	Dec 2017	Jun 2018
Total income statement impairments net of recoveries (Rm)	4 506	4 789	4 554	1 594	3 304	1 815
Specific impairments <sup>1</sup>	4 143	4 355	4 558	1 902	3 258	1 987
Portfolio impairments <sup>2</sup>	363	434	(4)	(308)	46	(172)
Total balance sheet impairments (Rm)	11 095	11 411	12 149	12 046	12 002	14 265
Specific impairments	6 832	6 664	7 317	7 518	7 081	8 010
Portfolio impairments	4 263	4 747	4 832	4 528	4 921	6 255
Total impairments to gross loans and advances (%) <sup>3</sup>	1,78	1,65	1,69	1,67	1,66	1,96
Corporate and Investment Banking	0,48	0,49	0,58	0,54	0,61	0,45
Retail and Business Banking	3,22	3,00	2,98	2,98	2,85	3,51

<sup>&</sup>lt;sup>1</sup> Reflects stage 3 ECL allowance from 1 January 2018.

#### **Credit loss ratio**

The CLR increased by 6 bps to 0,53%, driven by increases in defaults in the CIB portfolio, the implementation of IFRS 9 and the inclusion of impairments on off-balance-sheet exposures. This is partially offset by the change in treatment of suspended interest under IFRS 9, which structurally lowers the CLR of both Home Loans and Personal Loans as well as the corresponding interest rate margin.

The group CLR remained below its TTC target range of 0,6–1,0%, with all clusters in or below their target ranges, with the exception of RoA. The high quality of the portfolios across all our businesses continues to be reflected in the low CLR.

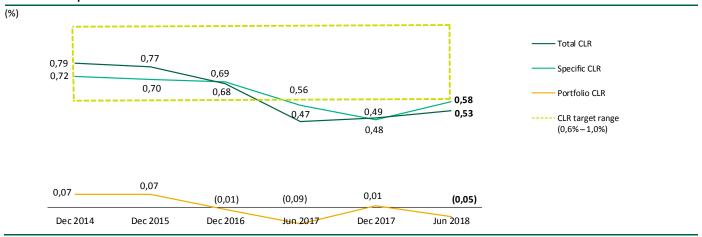
RBB CLR decreased to 1,06% on the back of a selective-origination strategy across all asset classes, as well as the impact of IFRS 9, in terms of which increased provision requirements on the performing book were offset by a reduced impairment charge for the non-recoverable portion of interest on impaired advances (interest in suspense) and improved macroeconomic assumptions relative to the forecast on transition to IFRS 9.

- The overall impact of the increased provision requirements can be seen in the MFC and Card portfolios, while the Personal Loans and Home Loans portfolios benefit from the revised disclosure of interest on impaired loans and advances.
- CIB CLR increased to 0,01% as increased defaulted advances due to some stressed sectors were offset by positive reratings and successful
  resolutions.
- Property Finance CLR increased to 0,11% and remains within its TTC target range.
- Wealth has seen a marginal increase in its CLR, impacted by slow economic growth locally, and the CLR remains below the TTC target range of 0,20–0,40%.
- RoA CLR increased to 1,09%, above the TTC range of 0,65–1,0%, driven by increased economic pressure in some subsidiaries.

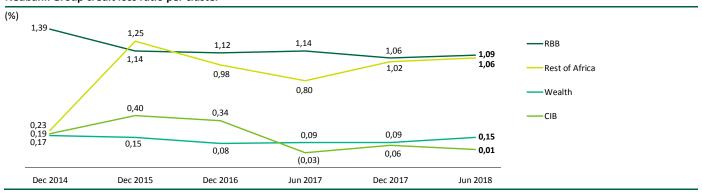
<sup>&</sup>lt;sup>2</sup> Reflects the sum of stage 1 and stage 2 ECL allowances from 1 January 2018.

<sup>&</sup>lt;sup>3</sup> Excludes ECL with respect to non-loans and advances, off-balance-sheet and FVOCI.

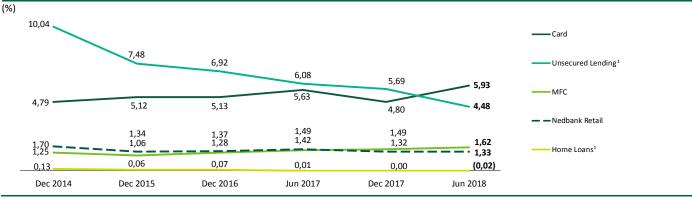
#### **Nedbank Group credit loss ratio trends**



### Nedbank Group credit loss ratio per cluster

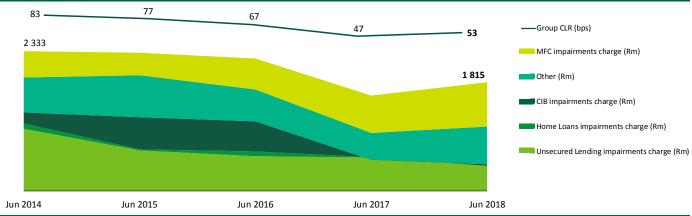


#### Nedbank Retail credit loss ratio per business unit



 $<sup>^{1}</sup>$  Unsecured Lending and Home Loans represent specific business units within Nedbank Retail.

### Group impairments charge and credit loss ratio



For more information on CLR please refer to the Nedbank Group Limited Interim Results for the six months ended 30 June 2018.

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### **Impairments**

Nedbank Group's balance sheet impairments increased on transition to IFRS 9 by 26,1% (after FVTPL reclassifications) to R14 447m at 1 January 2018, and increased by 3,5% (annualised) to R14 696m in June 2018, resulting in total impairments as a percentage of gross loans and advances increasing to 1,96% (excluding ECL with respect to non-loans and advances, off-balance-sheet and FVOCI).

The group's income statement impairments increased 13,9% to R1 815m.

- CIB income statement impairments increased to R23m, driven by increases in defaulted advances, offset by recoveries and positive reratings on material clients.
- RBB impairments decreased by 1,7% to R1,7bn as a result of an improvement in collections, as well as a structural change in the treatment of suspended interest under IFRS 9, which reduced impairments and NII by R180m. Adjusting for this impact, RBB impairments would have increased 8,9%.

The central provision remained stable at R150m.

#### NEDBANK GROUP BALANCE SHEET IMPAIRMENTS BY BUSINESS CLUSTER

Rm	Jun 2018	Jun 2017	Dec 2017
Nedbank Group	14 265	12 046	12 002
Nedbank CIB	1 569	1 986	2 200
Nedbank CIB, excluding Property Finance	913	1 497	1 666
Property Finance	656	489	534
Nedbank RBB	11 468	9 124	8 951
Nedbank Business Banking	1 183	1 386	1 362
Nedbank Retail	10 285	7 738	7 589
Nedbank Wealth	183	127	120
Rest of Africa	880	460	578
Centre	165	349	153

#### **NEDBANK GROUP IMPAIRMENT RATIO BY BUSINESS CLUSTER**

%	Dec 2014	Dec 2015	Dec 2016	Jun 2017	Dec 2017	Jun 2018
Total impairments to gross loans and advances	1,78	1,65	1,69	1,67	1,66	1,96
Nedbank CIB	0,48	0,49	0,58	0,54	0,61	0,45
Nedbank CIB, excluding Property Finance	0,42	0,45	0,65	0,65	0,78	0,45
Property Finance	0,60	0,55	0,47	0,36	0,37	0,45
Nedbank RBB	3,22	3,00	2,98	2,98	2,85	3,51
Nedbank Business Banking	1,98	2,17	2,15	2,04	2,01	1,61
Nedbank Retail <sup>1</sup>	3,61	3,25	3,21	3,25	3,08	4,06
Home Loans <sup>2</sup>	2,18	1,86	1,70	1,63	1,45	1,77
MFC	2,69	2,29	2,33	2,45	2,44	2,90
Unsecured Lending <sup>3</sup>	13,92	13,89	13,48	13,54	12,77	14,80
Card	7,21	8,29	8,67	9,17	7,90	14,09
Nedbank Wealth	0,67	0,54	0,54	0,43	0,41	0,58
Rest of Africa	1,26	2,18	2,11	2,21	2,73	3,83

 $<sup>^{1}\,\</sup>textit{Only Nedbank Retail business units that contribute significantly to impairments are \textit{reflected}.}$ 

 $<sup>^{2}</sup>$  Home Loans represents a specific business unit within Nedbank Retail.

<sup>&</sup>lt;sup>3</sup> Unsecured Lending represents a specific business unit within Nedbank Retail.

### Nedbank's credit risk measurement and methodology

Nedbank's Basel III AIRB credit methodology is fully implemented across all its major credit portfolios.

Under this methodology credit risk is essentially measured by two key components, namely:

- Expected loss (EL) is a 12-month estimate based on the long-run annual average level of credit losses through a full credit cycle (TTC) based on historical data.
- UL is the 99,9th percentile of credit risk loss distribution.

These statistically estimated losses are determined by the key Basel III AIRB credit risk parameters, namely PD, EAD, LGD and effective maturity. These, together with the relevant Basel III capital formulae per asset class, culminate in the Pillar 1 minimum regulatory capital requirements for credit risk.

#### **DEVELOPMENT OF CREDIT RATING MODELS**

The three measures of risk that are used in an internal credit rating system are as follows:

- Probability of default (PD), which measures the likelihood of a client defaulting on credit obligations within the next 12 months (as per Basel III and banking regulations).
- Exposure at default (EAD), which quantifies the expected exposure on a particular facility at the time of default. EAD models consider the likelihood that a client would draw down against available facilities in the period leading up to default.
- Loss given default (LGD), which is the economic loss the group expects to incur on a particular facility should the client default (calculated in accordance with Basel III and the banking regulations). Basel III requires that banks use dLGD estimates in regulatory capital calculations, as PD and LGD may be correlated. dLGD measures the losses expected during economic downturn conditions.

The Basel III Pillar 1 models used for developing the key measures of PD, EAD and LGD form the cornerstone of Nedbank's internal rating and economic capital systems.

Each business cluster has a team of specialist quantitative analysts who are responsible for the development and maintenance of the PD, LGD and EAD models. A team of suitably qualified individuals within GCRM, namely the CMVU, is responsible for the independent validation of all models, while GIA performs risk-based audits.

Nedbank makes use of a range of modelling approaches, as illustrated in the following diagram:

#### **MODEL TYPE**

	MODEL CHAF	RACTERISCTICS	
Constrained expert judgement scorecards	Hybrid models	Statistical scorecards	Structural models
<ul> <li>These models are appropriate for certain low-default portfolios where there is insufficient data to perform robust statistical modelling.</li> <li>A range of questions that allows for the differentiation of risk is developed in consultation with experts in the field.</li> <li>These questions are structured to ensure objectivity during the rating process.</li> </ul>	<ul> <li>Hybrid models comprise the best of conventional statistical modelling techniques and constrained expert judgement.</li> <li>These models are typically used for portfolios where there is insufficient data to develop robust statistical measures in isolation.</li> <li>Statistical tests are still performed, but these are enhanced with the addition of input from credit experts.</li> </ul>	<ul> <li>These models represent conventional credit scoring and are developed utilising standardised statistical methodologies.</li> <li>The techniques are well established and most suitable when large data volumes are available, such as in the case of retail portfolios.</li> </ul>	<ul> <li>Structural models such as cashflow simulation models are the most complex type of model.</li> <li>In some instances the data requirements are also significant, as in the case of the workout models used to estimate LGD and EAD.</li> </ul>

The following is an overview of the rating approaches adopted across the various asset classes:

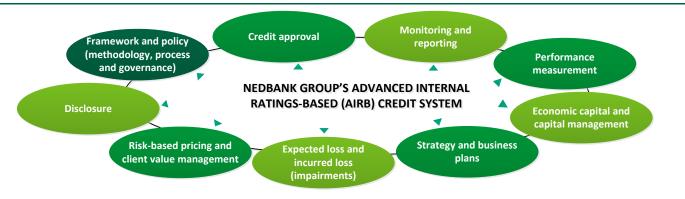
#### **NATURE OF RATING SYSTEM**

WHO	DLESALE RATING SYSTEM	RETA	AIL RATING SYSTEM			
Asset classes	Modelling approaches adopted	Asset classes	Modelling approaches adopted			
Corporate  SME – corporate  Banks  Sovereign, public sector entities (PSEs) and local government and municipalities  Specialised lending, comprising:  Project finance Income-producing real estate (IPRE) High-volatility commercial real estate (HVCRE)	<ul> <li>A range of modelling approaches is adopted across Nedbank's wholesale portfolios.</li> <li>Hybrid models are typically used to measure PD, while structural EAD and workout LGD models are in place for most portfolios.</li> <li>Models are typically developed using internal data, although external data has been used for the bank portfolio in view of the low number of defaults experienced in that portfolio.</li> <li>Structural cashflow simulation models has been developed for the project finance, leveraged buyout and IPRE portfolios that provide estimates of PD and LGD.</li> <li>The supervisory slotting approach is used for the HVCRE (development and vacant-land real-estate) portfolio.</li> <li>Constrained expert judgement models are used.</li> </ul>	<ul> <li>Retail mortgages</li> <li>Retail revolving credit</li> <li>SME – retail</li> <li>Retail other, comprising:         <ul> <li>Overdrafts</li> <li>Unsecured lending</li> <li>Vehicle and asset finance</li> </ul> </li> </ul>	<ul> <li>A number of statistical PD models have been developed for the various retail portfolios.</li> <li>Both application stage and behavioural PD models are utilised in most portfolios.</li> <li>Application models are developed using a combination of internal and external (credit bureau) data, while internal data is used to develop behavioural models.</li> <li>Given the large data volumes available for these portfolios, pure statistical techniques are applied.</li> <li>EAD and LGD models are in use across all material portfolios, which have been developed using the group's own default experience.</li> </ul>			

Whenever possible, PD models are calibrated to long-term default and loss rates, ensuring that capital estimates meet regulatory requirements. Where suitably robust default rates are not available, for example in the case of low-default portfolios, external data sources such as external ratings are included to ensure appropriate calibration.

The risk estimates generated from Nedbank's internal models are used across the credit process in running the business, as summarised in the following diagram:

#### Overview of Nedbank's use of its Advanced Internal Ratings-based Approach credit system



The Group Credit Policy incorporates the minimum requirements stipulated in the revised SA banking regulations as well as Nedbank's aspiration to best-practice credit risk management. This policy is implemented across the group, with detailed and documented policies and procedures, suitably adapted for use by the various business units. The policy forms the cornerstone for sound credit risk management, as it provides a firm framework for credit granting as well as the subsequent monitoring of credit risk exposures.

### Nedbank's master credit rating scale

Nedbank uses two master rating scales for measuring credit risk. The first rating scale measures borrower default risk without the effect of collateral and any CRM (ie PD only), while the second measures transaction risk (ie EL), which incorporates the effect of collateral, any other CRM and recovery rates. All credit applications are required to carry the borrower PD rating [from the Nedbank Group Rating (NGR) master rating scale] and an estimate of LGD.

PD MASTER RATING (NGR) SCALE - INTERNATIONAL SCALE

		Geometric	PD	band (%)	Mapping to	
		mean	Lower bound	Upper bound	Standard &	
Rating category	Rating grade	(%)	(PD >)	(PD ≤)	Poor's grades <sup>1</sup>	Mapping to
Performing	NGR01	0,010	0,000	0,012	AAA	
	NGR02	0,014	0,012	0,017		
	NGR03	0,020	0,017	0,024	AA+	
	NGR04	0,028	0,024	0,034	AA	0,00 to < 0,15
	NGR05	0,040	0,034	0,048	AA-	0,00 t0 < 0,13
	NGR06	0,057	0,048	0,067	A+	
	NGR07	0,080	0,067	0,095	A-	
	NGR08	0,113	0,095	0,135	Α	
	NGR09	0,160	0,135	0,190	A-	0,15 to < 0,25
	NGR10	0,226	0,190	0,269	BBB+	0,13 (0 < 0,23
	NGR11	0,320	0,269	0,381	BBB	0,25 to < 0,50
	NGR12	0,453	0,381	0,538	BBB-	0,23 t0 < 0,30
	NGR13	0,640	0,538	0,761	BB+	0,50 to < 0,75
	NGR14	0,905	0,761	1,076	BB	0,30 t0 < 0,73
	NGR15	1,280	1,076	1,522	BB-	0,75 to < 2,50
	NGR16	1,810	1,522	2,153		0,73 t0 < 2,30
	NGR17	2,560	2,153	3,044	B+	
	NGR18	3,620	3,044	4,305		2,50 to < 10,00
	NGR19	5,120	4,305	6,089	В	2,30 t0 < 10,00
	NGR20	7,241	6,089	8,611		
	NGR21	10,240	8,611	12,177	B-	
	NGR22	14,482	12,177	17,222		
	NGR23	20,480	17,222	24,355		10,00 to < 100,00
	NGR24	28,963	24,355	34,443	CCC	
	NGR25	40,960	34,443	99,999	CC	
	NP1	100	100	100	D	
Non-performing	NP2	100			D	100,00 (Default)
(defaulted)	NP3	100			D	

<sup>&</sup>lt;sup>1</sup> The indicative mapping methodology for corporate exposures was amended during 2017 based on default information published by the rating agency.

The comprehensive PD rating scale, which is mapped to default probabilities, enables the bank to rate all borrowers on a single scale, whether they are lower-risk corporate or higher-risk retail borrowers. The principal benefit thereof is that comparisons can be made between the riskiness of borrowers making up various portfolios.

NGR21 to NGR25 represent very-high-risk borrowers with default probabilities greater than 8,6%. While many banks would generally not knowingly expose themselves to this degree of risk, these rating grades exist for the following reasons:

- Being in an emerging market, there are times when local banks would be willing to take on this level of risk, while pricing appropriately.
- There may be times when the consequences of not lending may be more severe than lending eg in the case of a marginal going concern with existing loans but a strong business plan.
- They cater for borrowers that were healthy but have migrated down the rating scale to the point of being near default.
- From time to time the bank may grant facilities to very risky borrowers on the basis of significant collateral offered. This particular rating scale measures only the likelihood of the borrower defaulting and does not recognise that a very high level of default risk may well have been successfully mitigated with collateral.

NP1 applies to recent defaults, NP2 represents those accounts in respect of which the bank is proceeding to legal recovery of money owing and NP3 is for long-term legal cases exceeding a period of 12 months.

Basel III requires that AIRB banks maintain two ratings for wholesale exposures, one measuring the probability of the borrower defaulting and the second considering facility characteristics. The Nedbank Group Transaction Rating (NTR) table below combines these by reflecting the EL (the product of the PD, LGD and EAD) as a percentage of EAD and contains 10 rating bands. The first three bands represent facilities of low risk, the next three bands are facilities of average risk and the final four bands indicate facilities of high or very high risk.

#### **EXPECTED LOSS TRANSACTION RATING SCALE (NTR)**

	Expected loss as a	percentage of EAD
Rating class	Lower bound (EL >)	Upper bound (EL ≤)
NTR01	0,00	0,05
NTRO2	0,05	0,10
NTR03	0,10	0,20
NTRO4	0,20	0,40
NTR05	0,40	0,80
NTR06	0,80	1,60
NTR07	1,60	3,20
NTR08	3,20	6,40
NTR09	6,40	12,80
NTR10	12,80	100,00

- The NTR scale measures the total or overall credit risk (ie EL) of individual exposures, thereby allowing credit officers to consider the mitigating effect of collateral, other CRM and recovery rates on borrower risk. This reflects the true or complete measurement of credit risk, incorporating not only PD, but importantly also LGD.
- Credit risk reporting across the group is, to a large extent, based on the twin rating scales discussed above. Business units report on the distribution of their credit exposures across the various rating scales and explain any changes in such distribution, including the migration of exposures between rating grades and underlying reasons for the migration.
- External credit assessment agencies and export credit agencies (ECA) ratings are used indirectly as inputs into rating models for the bank and sovereign and securitisation asset classes. During 2018 there were no changes in the external credit assessment institutions (ECAIs) and ECA utilised. Moody's, Fitch and Standard & Poor's ratings are used, mainly for exposures in the bank, sovereign and securitisation asset classes. The respective definitions of default of the ECAIs are compared with the internal definition of default and the external ratings mapped to the internal masterscale in a consistent manner.

CR6: AIRB – CREDIT RISK EXPOSURE BY PORTFOLIO AND PD RANGE

	Original	Off-balance-										
	on-balance-	sheet		EAD								
	sheet gross	exposures	Average	post-CRM	Average		Average	Average				
ala a a	exposure	•		•		Number		maturity			EL	Provisions
ciass	KM	KM	%	KM	%	of obligors	%	Years	KM	/ %	KM	Rm
0.001								4.50	44.004	40.00		
			•		•			•		•		
										-		
										•		
0,75 to < 2,50	31 360	8 162	0,84	38 096	1,31	13 240	32,18	1,94	25 261	66,31	157	
2,50 to < 10,00	23 930	8 282	0,81	30 215	4,67	20 671	30,51	1,90	28 052	92,84	430	
10,00 to < 100,00	12 211	1 561	0,51	13 007	19,90	1 840	16,43	1,18	10 922	83,97	425	
100,00 (default)	3 619	712	0,60	4 010	100,00	1 562	24,41	1,82	5 566	138,80	686	
	210 457	116 050	0,66	280 173	3,19	63 941	30,02	1,70	117 036	41,77	1 825	665
lending <sup>1</sup>												
0,00 to < 0,15	34 726	963	2,76	37 385	0,07	1 088	16,58	3,56	4 875	13,04	9	
0,15 to < 0,25	25 699	3 434	0,94	28 937	0,21	513	20,38	3,35	7 108	24,56	12	
0,25 to < 0,50	22 983	1 195	1,52	24 797	0,38	634	18,94	3,99	8 500	34,28	18	
0,50 to < 0,75	7 960	259	2,71	8 661	0,64	477	17,27	3,39	3 085	35,62	10	
0,75 to < 2,50	23 030	920	2,25	25 097	1,29	1 276	17,19	3,69	11 738	46,77	59	
2,50 to < 10,00	20 324	742	2,05	21 850	4,51	1 947	18,78	3,03	14 909	68,23	195	
10,00 to < 100,00	1 491	9	8,56	1 568	14,48	183	22,36	3,64	1 901	121,24	56	
100,00 (default)	1 856	2		1 856	100,00	46	17,43	3,80	2 328	125,43	170	
	138 069	7 524	1,61	150 151	2,42	6 164	18,23	3,53	54 444	36,26	529	170
or entities												
0,00 to < 0,15	11 693	1 941	0,73	13 105	0,04	818	45,19	1,71	1 297	9,90	2	
0,15 to < 0,25	9 118	290	1,80	9 639	0,16	258	27,59	3,47	3 041	31,55	4	
0,25 to < 0,50	49			50		151			16			
0,50 to < 0,75		2	1,00	2	0,64	1		•	1	•		
0,75 to < 2,50	451	6	1,00	457	1,28	125	22,05	4,63	301	•	1	
2,50 to < 10,00	226	1 712	0,97	1 892	3,77	317	57,15	•	3 018	•	45	
			, , , , , , , , , , , , , , , , , , , ,		,		,	,				
, ()	21 537	3 951	0.91	25 145	U 30	1 670	38 88	2 20	7 674	30 52	52	
	10,00 to < 100,00 100,00 (default)  lending¹ 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)  or entities 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	class  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 10,00 to < 100,00 10,00 to < 0,15 0,15 to < 0,25 0,25 to < 0,50 10,00 to < 100,00 10,00 to < 100,00 10,00 to < 0,15 0,15 to < 0,25 0,25 to < 0,50 0,75 to < 2,50 2,50 to < 10,00 10,00 to < 0,15 0,15 to < 0,25 0,25 to < 0,50 0,75 to < 2,50 2,50 to < 10,00 10,00 to < 100,00 11 to < 0,00 12 to < 0,00 13 to < 0,00 14 to < 100,00 15 to < 0,00 16 to < 0,00 17 to < 0,00 18 to < 0,00 19 to < 0,00 10,00 to < 0,00 11 to < 0,00 11 to < 0,00 12 to < 0,00 13 to < 0,00 14 to < 0,00 15 to < 0,00 15 to < 0,00 16 to < 0,05 17 to < 0,05 18 to < 0,05 19 to < 0,05 10,00 to < 100,00	On-balance sheet gross exposure Rm	On-balance sheet gross exposure Rm	Combalance sheet gross   Exposures pre-CCF   Rm   Rm   Rm   Rm   Rm   Rm   Rm   R	class	Combine	On-balance sheet gross exposures exposures   Rm   Pre-CCF   Pre-CCF   Pre-CCF   Rm   Pre-CCF   Pre	Class	Color   Colo	thest gross exposure (and sheet processed in the exposure of	thest gross separate sheet gross separate sheet gross separate gr

June 2018 Basel asset class	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 %	Number of obligors	Average LGD %	Average maturity Years	RWA Rm	RWA density %	EL Rm	Provisions Rm
Local government and municipalities				<u> </u>								
0,00 to < 0,15	4 748	331	1,29	5 177	0,09	90	17,88	3,95	823	15,90	1	
0,15 to < 0,25	3 345	46	1,89	3 430	0,23	38	17,14	4,53	917	26,73	2	
0,25 to < 0,50	166	2	1,67	171	0,44	2	29,73	5,00	110	64,33		
0,50 to < 0,75	152	6	0,83	157	0,64	20	23,83	4,28	87	55,41		
0,75 to < 2,50	4	6	1,00	10	0,96	9	26,17	1,92	5	50,00		
2,50 to < 10,00	10	2	1,00	11	4,89	14	26,13	1,13	9	81,82		
10,00 to < 100,00												
100,00 (default)	24			24	100,00	2	26,43	5,00			10	
	8 449	393	1,35	8 980	0,43	175	17,97	4,19	1 951	21,73	13	10
Sovereign												
0,00 to < 0,15	123 479	96	2,43	123 712	0,02	12 221	17,00	2,56	6 019	4,87	5	
0,15 to < 0,25	333			340	0,17	50	68,01	4,22	301	88,53		
0,25 to < 0,50												
0,50 to < 0,75	1 504			1 504	0,64	56	40,20	1,47	927	61,64	4	
0,75 to < 2,50	661			668	0,91	2	72,40	4,69	1 328	198,80	4	
2,50 to < 10,00	289			297	4,16	43	59,83	3,88	661	222,56	7	
10,00 to < 100,00	51			51	11,58	18	66,58	3,53	174	341,18	5	
100,00 (default)												
	126 317	96	2,68	126 572	0,05	12 390	17,83	2,56	9 410	7,43	25	
Banks												
0,00 to < 0,15	12 497	196	(3,14)	12 899	0,08	582	26,98	1,25	1 722	13,35	2	
0,15 to < 0,25	4 952	64	(1,34)	5 105	0,16	270	21,37	1,57	976	19,12	2	
0,25 to < 0,50	1 135	51	(1,33)	1 204	0,44	262	47,94	4,09	1 506	125,08	3	
0,50 to < 0,75	384	272	0,62	552	0,64	333	33,30	2,06	351	63,59	1	
0,75 to < 2,50	10			10	0,91	100	42,70	1,00	9	90,00		
2,50 to < 10,00	841	475	(1,47)	1 317	4,90	138	50,35	0,70	2 033	154,37	32	
10,00 to < 100,00	23	520	1,05	543	20,19	26	51,79	0,88	1 352	248,99	60	
100,00 (default)												
	19 842	1 578	11,77	21 630	0,93	1 711	29,03	1,46	7 949	36,75	100	

June 2018 Basel asset class	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 %	Number of obligors	Average LGD %	Average maturity Years	RWA		EL Rm	Provisions Rm
Retail – mortgages									<u> </u>	<u> </u>		
0,00 to < 0,15	1 554	5 284	1,00	6 844	0,08	25 911	10,88	10,93	150	2,19	1	
0,15 to < 0,25	7 551	4 095	1,07	11 935	0,19	19 055	11,44	15,34	568	4,76	3	
0,25 to < 0,50	16 666	6 144	1,07	23 265	0,40	31 360	11,33	15,44	1 859	7,99	11	
0,50 to < 0,75	13 363	3 452	1,09	17 117	0,64	29 170	11,61	15,24	1 951	11,40	13	
0,75 to < 2,50	40 028	3 324	1,34	44 493	1,27	69 371	12,29	17,06	8 435	18,96	70	
2,50 to < 10,00	30 171	1 789	0,84	31 666	3,89	61 339	13,31	18,22	12 716	40,16	167	
10,00 to < 100,00	13 024	184	2,04	13 399	20,99	26 576	13,34	17,44	9 855	73,55	374	
100,00 (default)	6 234	345	0,05	6 251	100,00	11 112	15,06	17,69	682	10,91	1 328	
	128 591	24 617	1,07	154 970	7,16	273 894	12,35	16,46	36 216	23,37	1 967	1 322
Retail – revolving credit												
0,00 to < 0,15	1	17	0,13	3	0,11	1 162	35,36					
0,15 to < 0,25	432	2 311	0,29	1 091	0,21	64 914	46,05		59	5,41	1	
0,25 to < 0,50	1 001	3 148	0,24	1 772	0,39	110 690	52,38		180	10,16	4	
0,50 to < 0,75	473	1 184	0,48	1 046	0,64	75 590	56,13		169	16,16	4	
0,75 to < 2,50	3 362	5 120	0,24	4 610	1,37	295 748	52,23		1 235	26,79	32	
2,50 to < 10,00	4 531	3 895	0,46	6 339	5,04	715 673	53,92		4 346	68,56	173	
10,00 to < 100,00	4 492	1 192	0,56	5 161	21,41	382 005	54,34		7 336	142,14	604	
100,00 (default)	1 686			1 686	100,00	2 615 975	56,76		1 075	63,76	1 254	
	15 978	16 867	0,34	21 708	14,69	4 261 757	53,47		14 400	66,33	2 072	1 844
SME – retail												
0,00 to < 0,15	202	182	0,73	335	0,09	1 769	19,27	1,49	16	4,78		
0,15 to < 0,25	458	647	0,69	901	0,21	5 802	20,28	2,43	82	9,10		
0,25 to < 0,50	1 425	1 868	0,65	2 630	0,42	15 951	20,09	3,22	361	13,73	2	
0,50 to < 0,75	1 531	1 234	0,72	2 425	0,64	13 327	21,24	3,36	449	18,52	3	
0,75 to < 2,50	11 952	4 095	0,79	15 177	1,37	43 449	21,44	3,26	3 918	25,82	45	
2,50 to < 10,00	16 168	4 461	0,70	19 286	5,33	124 132	29,01	2,63	8 827	45,77	313	
10,00 to < 100,00	2 012	729	0,19	2 151	18,74	9 687	24,57	2,25	1 165	54,16	104	
100,00 (default)	1 663	175	0,03	1 669	100,00	20 239	28,84	2,53	1 188	71,18	650	
	35 411	13 391	0,69	44 574	7,49	234 356	25,01	2,88	16 006	35,91	1 117	650

June 2018 Basel asset class	Original on-balance- sheet gross exposure Rm	Off-balance- sheet exposures pre-CCF Rm	Average CCF %	•	Average PD %	Number	Average LGD %	Average maturity Years	RWA Rm	RWA density %	EL Rm	Provisions Rm
Retail – other											<u> </u>	
0,00 to < 0,15	11	68	1,00	79	0,07	631	41,10		6	7,59		
0,15 to < 0,25	13	89	0,84	88	0,19	329	28,66	1,75	10	11,36		
0,25 to < 0,50	86	188	0,71	220	0,34	822	38,43	0,42	51	23,18		
0,50 to < 0,75	725	53	0,64	759	0,64	7 480	30,66	0,08	203	26,75	1	
0,75 to < 2,50	23 563	233	0,61	23 704	1,64	234 650	27,12	0,01	8 249	34,80	106	
2,50 to < 10,00	60 780	147	0,65	60 876	4,71	456 144	32,46		30 732	50,48	953	
10,00 to < 100,00	20 657	40	0,53	20 678	24,13	273 156	40,04		19 123	92,48	1 884	
100,00 (default)	6 010			6 010	100,00	171 068	41,32		404	6,72	3 253	
	111 845	818	0,70	112 414	12,69	1 144 280	33,20		58 778	52,29	6 197	3 253
Group												
0,00 to < 0,15	244 053	63 856	0,71	288 534	0,05	52 996	22,27	2,25	26 292	9,11	40	
0,15 to < 0,25	86 373	34 493	0,78	112 917	0,20	95 908	26,56	2,29	27 991	24,79	59	
0,25 to < 0,50	76 823	25 853	0,77	94 398	0,39	169 656	22,63	2,07	26 602	28,18	82	
0,50 to < 0,75	42 503	12 243	0,60	46 333	0,64	129 895	21,60	1,80	14 126	30,49	64	
0,75 to < 2,50	134 421	21 866	0,83	152 322	1,35	657 970	22,80	1,67	60 479	39,70	474	
2,50 to < 10,00	157 270	21 505	0,82	173 749	4,60	1 380 418	27,76	1,15	105 303	60,61	2 315	
10,00 to < 100,00	53 961	4 235	0,62	56 558	21,64	693 491	28,65	0,52	51 828	91,64	3 512	
100,00 (default)	21 092	1 234	0,35	21 506	100,00	2 820 004	28,70	1,06	11 243	52,28	7 351	
Total group	816 496	185 285	0,75	946 317	4,74	6 000 338	24,40	1,79	323 864	34,22	13 897	7 914
Slotting exposure									8 323		74	96
Total including slotting									332 187		13 971	8 010

 $<sup>^{1}</sup>$  RWA excludes specialised lending – HVCRE, which is included under the Slotting Approach.

		Original on-balance- sheet gross	Off-balance- sheet exposures	Average	EAD post-CRM	Average		Average	Average				
June 2017		exposure	pre-CCF	CCF	and post-CCF	PD	Number	LGD	maturity	RWA	RWA density	EL	Provisions
Basel asset class		Rm	Rm	%	Rm	%	of obligors	%	Years	Rm	%	Rm	Rm
Corporate													
	0,00 to < 0,15	78 344	45 151	68,15	108 517	0,08	452	26,67	1,75	18 473	17,02	26	
	0,15 to < 0,25	28 162	14 478	68,02	38 001	0,21	360	25,56	1,72	9 334	24,56	19	
	0,25 to < 0,50	38 748	14 467	77,92	48 600	0,37	466	20,48	1,82	16 696	34,35	43	
	0,50 to < 0,75	15 652	2 414	130,77	13 513	0,51	475	21,47	1,49	6 730	49,81	22	
	0,75 to < 2,50	25 739	8 460	83,38	32 531	1,44	2 010	22,09	2,10	19 736	60,67	124	
	2,50 to < 10,00	22 724	7 258	78,66	28 422	4,39	1 961	26,54	2,17	27 289	96,01	379	
	10,00 to < 100,00	3 753	1 558	55,15	4 511	21,41	236	25,14	1,56	7 157	158,66	303	
	100,00 (default)	3 017	646	24,72	3 177	100,00	40	23,25	1,86	3 114	98,04	955	
-		216 139	94 432	70,14	277 272	2,18	6 000	24,76	1,85	108 529	39,14	1 871	2 172
Specialised l	ending <sup>1</sup>												
	0,00 to < 0,15	33 288	1 636	196,89	36 509	0,07	508	9,86	3,67	4 470	12,24	5	
	0,15 to < 0,25	21 368	1 445	104,10	22 871	0,17	193	12,40	3,45	6 395	27,96	11	
	0,25 to < 0,50	19 328	712	213,10	20 846	0,45	326	12,50	4,37	6 932	33,25	14	
	0,50 to < 0,75	5 172	283	194,97	5 723	0,88	313	13,25	3,90	1 883	32,91	18	
	0,75 to < 2,50	23 495	771	211,52	25 281	1,48	929	14,40	4,05	13 163	52,22	78	
	2,50 to < 10,00	22 205	772	178,74	23 585	5,03	524	13,77	3,41	16 361	69,37	274	
	10,00 to < 100,00	2 594	292	137,01	2 993	14,89	116	13,26	3,91	3 072	102,62	69	
	100,00 (default)	772			772	100,00	31	26,07	3,03	1 078	139,53	154	
		128 222	5 911	173,13	138 580	2,63	2 940	12,47	3,77	53 354		623	414
Public sector	entities												
	0,00 to < 0,15	9 943	1 313	63,90	10 782	0,02	14	43,13	2,28	916	8,49	1	
	0,15 to < 0,25	9 576	2 792	72,03	11 587	0,18	6	16,40	3,68	2 551	22,02	4	
	0,25 to < 0,50	215			215	0,45	2	5,00	4,91	60	27,91		
	0,50 to < 0,75	254	27	100,00	280	0,64	1	20,81	4,55	183	65,44		
	0,75 to < 2,50	150	73	83,65	211	4,25	4	78,97	14,51	120	56,96	2	
	2,50 to < 10,00	266	1 655	100,28	1 926	3,63	1	41,08	1,49	2 515	130,59	32	
	10,00 to < 100,00												
	100,00 (default)												
		20 404	5 860	78,46	25 001	0,42	28	30,31	3,02	6 345	25,38	39	15

June 2017 Basel asset cl	lass	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 %	Number of obligors	Average LGD %	Average maturity Years	RWA Rm	RWA density %	EL Rm	Provisions Rm
Local governr	ment and municipalities												
	0,00 to < 0,15	3 171	105	156,78	3 335	0,08	5	13,43	4,45	618	18,52	1	
	0,15 to < 0,25	5 455	28	562,21	5 612	0,20	6	11,55	4,12	1 322	23,56	2	
	0,25 to < 0,50	24	64	56,20	60	0,40	4	13,01	2,17	16	27,21		
	0,50 to < 0,75	80	0	2 092,31	82	0,64	5	21,96	4,82	56	68,83		
	0,75 to < 2,50	12	15	80,41	24	1,04	8	19,26	2,05	13	56,80		
	2,50 to < 10,00												
	10,00 to < 100,00												
	100,00 (default)	29			29	100,00		12,50	5,00		< 1	8	
		8 771	212	175,10	9 142	0,47	28	12,36	4,23	2 025	22,16	11	11
Sovereign													
	0,00 to < 0,15	95 112	1 498	17,66	95 377	0,01	12	5,67	2,03	1 972	2,07	2	
	0,15 to < 0,25	364	132	60,59	444	0,03	1	11,57	0,70	411	92,38	1	
	0,25 to < 0,50	1			1					1	67,22		
	0,50 to < 0,75	1 939			1 945	0,64	3	43,29	2,22	1 742	89,58	6	
	0,75 to < 2,50	11		690,51	11	0,91	1	17,75	1,02	5	40,33		
	2,50 to < 10,00	147	17	19,68	151	3,73	4	35,74	1,50	313	207,49	5	
	10,00 to < 100,00	24			24	10,02	2	34,88	0,73	70	289,05	2	
	100,00 (default)												
		97 598	1 647	21,54	97 953	0,03	23	6,50	2,03	4 514	4,61	16	8
Banks													
	0,00 to < 0,15	27 417	135	621,55	28 207	0,10	80	21,34	1,32	3 676	13,06	6	
	0,15 to < 0,25	5 045	93	203,01	5 234	0,22	14	22,61	1,75	1 270	24,27	3	
	0,25 to < 0,50	862	271	158,43	1 293	0,54	18	34,58	1,80	602	46,57	2	
	0,50 to < 0,75	313	1	900,72	317	0,85	7	42,19	2,30	190	59,86	1	
	0,75 to < 2,50	9	1	109,27	13	51,24	6	2 093,05	70,62	12	108,07	3	
	2,50 to < 10,00	329	1 044	143,61	1 373	4,41	35	46,82	0,62	1 975	143,83	30	
	10,00 to < 100,00	265	269	129,33	538	17,68	8	57,64	0,69	1 620	301,27	63	
	100,00 (default)												
		34 240	1 814	190,79	36 975	0,57	168	24,34	1,40	9 344	25,32	108	16

June 2017 Basel asset class	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 %	Number of obligors	Average LGD %	Average maturity Years	RWA Rm	RWA density %	EL Rm	Provisions Rm
Retail – Mortgages												
0,00 to < 0,15	4 010	2 866	82,03	6 361	0,06	7 834	8,19	0,01	162	2,55	1	
0,15 to < 0,25	5 063	5 963	92,03	10 551	0,21	17 156	8,50	1,12	651	6,17	3	
0,25 to < 0,50	18 638	6 988	90,23	24 943	0,40	52 928	8,99	0,63	2 584	10,36	14	
0,50 to < 0,75	13 970	2 957	95,17	16 784	0,64	31 861	8,83	0,94	2 426	14,46	16	
0,75 to < 2,50	29 257	2 865	114,96	32 550	1,26	58 780	9,57	1,03	7 738	23,77	63	
2,50 to < 10,00	32 141	1 998	74,77	33 635	4,12	68 110	10,44	0,76	17 409	51,76	231	
10,00 to < 100,00	12 773	139	217,96	13 075	22,18	27 040	10,53	0,28	12 323	94,23	481	
100,00 (default)	6 117	334	5,85	6 137	100,00	11 684	12,00	0,67	1 041	16,97	1 235	
	121 969	24 110	91,53	144 036	7,68	275 393	9,64	0,77	44 331	30,78	2 044	1 630
Retail – Revolving credit												
0,00 to < 0,15	14	131	14,84	34	0,11	7 029	27,46		1	2,53		
0,15 to < 0,25	389	2 182	32,26	1 093	0,21	55 019	41,35		60	5,52	1	
0,25 to < 0,50	1 234	3 570	27,99	2 233	0,39	125 513	46,92		223	9,98	4	
0,50 to < 0,75	760	1 271	54,20	1 449	0,64	77 449	49,43		223	15,37	5	
0,75 to < 2,50	3 282	4 633	29,78	4 661	1,22	256 678	47,41		1 128	24,19	29	
2,50 to < 10,00	4 833	3 865	51,95	6 841	5,42	1 218 661	48,90		4 864	71,10	198	
10,00 to < 100,00	3 509	888	66,79	4 102	23,00	311 194	49,52		5 881	143,38	506	
100,00 (default)	1 645			1 645	100,00	2 464 543	52,29		120	7,32	1 420	
	15 666	16 540	38,65	22 058	13,76	4 516 086	48,38		12 500	56,67	2 163	1 629
SME – Retail												
0,00 to < 0,15	100	213	30,82	165	0,09	2 791	17,91	1,66	9	5,61		
0,15 to < 0,25	362	533	60,23	684	0,21	4 461	16,12	2,43	65	9,57		
0,25 to < 0,50	1 438	1 872	66,93	2 691	0,43	15 326	14,16	3,31	380	14,12	2	
0,50 to < 0,75	1 477	1 277	70,71	2 380	0,64	11 664	15,34	3,22	450	18,92	3	
0,75 to < 2,50	10 993	4 347	78,68	14 407	1,36	35 857	15,44	3,59	3 753	26,05	43	
2,50 to < 10,00	16 770	4 130	75,01	19 867	5,13	110 016	23,24	2,47	8 900	44,80	306	
10,00 to < 100,00	1 940	949	21,67	2 146	18,62	9 658	20,63	2,05	1 216	56,66	106	
100,00 (default)	1 678	216	2,97	1 684	100,00	5 831	21,92	2,58	797	47,34	730	
	34 758	13 537	68,49	44 024	7,56	195 604	19,40	2,91	15 572	35,37	1 190	1 119

June 2017	Original on-balance- sheet gross exposure	Off-balance- sheet exposures pre-CCF	Average CCF	EAD post-CRM and post-CCF	Average PD	North	Average LGD	Average maturity		RWA density	EL	Provisions
Basel asset class	Rm	Rm	%	Rm	<b>%</b>	Number of obligors	% %	Years		%	Rm	
Retail – Other												
0,00 to < 0,15	11		21,23	11	0,11	199	49,43		2	18,94		
0,15 to < 0,25	26	106	87,72	119	0,20	375	24,14	0,85	17	14,94		
0,25 to < 0,50	41	161	63,21	143	0,40	508	25,31	1,71	29	20,33		
0,50 to < 0,75	135	153	89,29	271	0,64	5 551	30,23	0,58	91	33,70	1	
0,75 to < 2,50	8 335	229	81,95	8 523	1,35	108 505	27,99	0,05	3 035	35,61	34	
2,50 to < 10,00	67 170	153	76,17	67 287	3,98	565 452	29,71	0,00	31 626	47,00	863	
10,00 to < 100,00	20 523	52	81,71	20 566	22,59	281 855	36,53	0,00	18 172	88,36	1 757	
100,00 (default)	5 387		100,00	5 387	100,00	160 246	40,47	0,01	721	13,38	2 654	
	101 628	854	79,37	102 307	12,54	1 122 691	31,50	0,01	53 693	52,48	5 309	4 342
Group												
0,00 to < 0,15	251 410	53 048	72,63	289 298	0,06	18 924	17,19	2,06	30 298	10,48	42	
0,15 to < 0,25	75 810	27 752	73,49	96 196	0,20	77 591	18,53	2,42	22 076	22,95	44	
0,25 to < 0,50	80 529	28 105	77,98	101 025	0,40	195 091	16,56	2,06	27 522	27,24	79	
0,50 to < 0,75	39 752	8 383	69,10	42 744	0,68	127 329	18,47	1,85	13 976	32,70	72	
0,75 to < 2,50	101 283	21 394	80,05	118 212	1,39	462 778	17,94	2,20	48 703	41,23	376	
2,50 to < 10,00	166 585	20 892	80,26	183 087	4,38	1 964 764	23,89	1,21	111 251	60,76	2 318	
10,00 to < 100,00	45 381	4 147	65,93	47 955	21,68	630 109	27,55	0,57	49 509	103,24	3 287	
100,00 (default)	18 645	1 196	15,52	18 831	100,00	2 642 375	27,03	0,90	6 872	36,49	7 156	
Total group	779 395	164 917	74,97	897 348	4,50	6 118 961	19,55	1,83	310 207	34,58	13 374	11 356
Slotting exposure									8 217			
Total including slotting									318 424			

 $<sup>^{1}</sup>$  RWA excludes specialised lending – HVCRE, which is included under the Slotting Approach.

	Original on-balance-	Off-balance- sheet		EAD								
December 2017	sheet gross	exposures pre-CCF	Average CCF	post-CRM and post-CCF	Average PD		Average LGD	Average maturity	RWA	RWA density	EL	Provisions
Basel asset class	exposure Rm	Rm	« «	Rm	РD %	Number of obligors	KGD %	-	Rm		Rm	Rm
Corporate												
0,00 to < 0,15	66 915	48 918	0,67	98 970	0,08	7 102	30,86	1,58	14 362	14,51	26	
0,15 to < 0,25	30 808	18 888	0,74	44 739	0,20	4 465	31,58	1,71	12 387	27,69	29	
0,25 to < 0,50	41 587	13 364	0,80	50 405	0,37	11 631	25,48	1,63	15 396		48	
0,50 to < 0,75	12 881	4 241	3,10	10 306	0,64	3 773	27,43	1,81	4 416		18	
0,75 to < 2,50	32 118	8 385	0,79	38 670	1,36	13 530	31,42	2,09	26 654	68,93	165	
2,50 to < 10,00	22 765	7 722	0,78	28 754	4,31	22 242	31,04	1,90	27 091	94,22	413	
10,00 to < 100,00	3 733	1 606	0,70	4 798	21,88	1 665	48,52	1,93	12 060	251,36	575	
100,00 (default)	2 337	716	0,39	2 614	100,00	1 444	28,73	2,25	3 466	132,60	644	
	213 144	103 840	0,69	279 256	2,09	65 852	30,25	1,73	115 832	41,48	1 918	1 963
Specialised lending <sup>1</sup>												
0,00 to < 0,15	34 648	2 621	1,69	39 081	0,07	1 116	16,27	3,58	4 836	12,37	9	
0,15 to < 0,25	22 017	403	3,10	23 266	0,19	441	18,50	3,44	4 995	21,47	9	
0,25 to < 0,50	21 419	2 259	1,04	23 768	0,39	566	20,16	4,09	8 971	37,75	19	
0,50 to < 0,75	8 584	120	7,18	9 445	0,64	501	16,59	3,40	3 277	34,70	11	
0,75 to < 2,50	21 567	731	2,80	23 620	1,32	1 314	16,80	3,61	10 713	45,36	57	
2,50 to < 10,00	19 888	374	2,99	21 007	4,43	2 661	17,76	3,28	13 637	64,92	176	
10,00 to < 100,00	3 273	9	14,67	3 404	21,55	233	21,71	3,85	4 251	124,89	163	
100,00 (default)	752			752	100,00	51	17,69	1,56	896	119,04	105	
	132 148	6 517	1,87	144 343	2,05	6 883	17,73	3,59	51 576	35,73	549	549
Public sector entities												
0,00 to < 0,15	9 942	1 718	0,78	11 285	0,04	763	47,45	1,94	1 232	10,92	2	
0,15 to < 0,25	9 108	282	1,82	9 622	0,16	286	20,88	3,52	2 167	22,52	4	
0,25 to < 0,50	260			262	0,45	153	15,35	4,09	76	28,81		
0,50 to < 0,75	254	6	1,00	260	0,64	120	27,15	4,88	177	68,02		
0,75 to < 2,50	74	17	1,11	94	1,71	152	28,41	2,74	68	72,58	10	
2,50 to < 10,00	219	1 615	1,00	1 829	3,62	203	57,89	1,00	2 923	159,80	39	
10,00 to < 100,00	26			26	20,48	2	12,60	1,00	18	66,55	1	
100,00 (default)												
	19 883	3 638	0,96	23 378	0,41	1 679	36,63	2,58	6 661	28,49	56	22

December 2017 Basel asset class	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 %	Number of obligors	Average LGD %	Average maturity Years	RWA Rm	•	EL Rm	Provisions Rm
Local government and municipalities												
0,00 to < 0,15	5 040	88	2,44	5 255	0,07	87	17,92	4,47	823	15,67	1	
0,15 to < 0,25	3 061			3 111	0,23	51	17,08	3,36	683	21,96	1	
0,25 to < 0,50	174	3	1,67	179	0,44	11	25,66	4,84	100	55,78		
0,50 to < 0,75	79	4	1,33	83	0,64	13	30,72	4,18	57	69,15		
0,75 to < 2,50	8	9	0,70	15	1,06	15	28,52	1,70	10	63,19		
2,50 to < 10,00		1	1,00	1	2,56	7	22,47	0,94		54,75		
10,00 to < 100,00												
100,00 (default)	27			26	100,00	2	26,40	5,00			7	
	8 389	105	2,71	8 670	0,45	186	17,94	4,08	1 673	19,31	9	16
Sovereign												
0,00 to < 0,15	96 807	653	0,71	97 272	0,02	8 985	17,33	2,10	4 614	4,74	4	
0,15 to < 0,25	660			673	0,19	45	42,95	3,30	381	56,67	1	
0,25 to < 0,50												
0,50 to < 0,75	1 829			1 835	0,64	47	49,50	2,68	1 820	99,16	6	
0,75 to < 2,50												
2,50 to < 10,00	113			115	5,71	23	65,90	3,32	300	260,09	4	
10,00 to < 100,00	22			23	13,07	3	58,59	2,23	65	289,05	2	
100,00 (default)												
	99 431	653	0,75	99 918	0,04	9 103	18,15	2,12	7 180	7,19	17	184
Banks												
0,00 to < 0,15	11 519	249	1,86	11 981	0,08	507	26,80	1,18	1 566	13,07	3	
0,15 to < 0,25	9 384	138	(11,54)	9 684	0,16	855	21,00	1,25	1 738	17,95	4	
0,25 to < 0,50	657	464	0,79	1 020	0,44	291	31,30	0,99	454	44,49	2	
0,50 to < 0,75	106	3	2,00	108	0,64	324	29,81	2,86	70	65,02		
0,75 to < 2,50	5			5	1,08	38	43,29	1,00	5	97,06	2	
2,50 to < 10,00	636	461	(2,92)	1 094	4,26	124	49,94	0,61	1 602	146,36	24	
10,00 to < 100,00		529	1,00	529	19,66	33	56,52	0,47	1 394	263,54	54	
100,00 (default)												
	22 307	1 844	2,00	24 421	0,74	2 172	26,38	1,17	6 829	27,96	89	7

	Original on-balance-	Off-balance- sheet		EAD								
	sheet gross	exposures	Average	post-CRM	Average		Average	Average				
December 2017 Basel asset class	exposure Rm	pre-CCF	CCF °⁄	and post-CCF	PD %	Number of obligors	LGD %	maturity Years	RWA Rm	•	EL Rm	
	KIII	Rm	%	Rm	<b>/</b> 0	Of Obligors	76	Tears	KIII	%	KIII	KIII
Retail – mortgages	1 410	F 2F0	1.00	C 777	0.07	26 772	10.05	10.50	145	2.14	1	
0,00 to < 0,15	1 410	5 350	1,00	6 777	0,07	26 772	10,95	10,58	145	2,14		
0,15 to < 0,25	7 403	4 065	1,06	11 692	0,19	19 934	11,58	15,15	562	4,80	3	
0,25 to < 0,50	17 260	6 347	1,07	24 027	0,40	34 302	11,34	14,73	1 924	8,01	11	
0,50 to < 0,75	13 246	3 242	1,10	16 816	0,64	28 885	11,74	14,93	1 937	11,52	13	
0,75 to < 2,50	38 134	3 209	1,33	42 402	1,26	68 323	12,59	16,65	8 205	19,35	68	
2,50 to < 10,00	29 450	1 402	1,04	30 907	3,88	61 054	13,66	17,85	12 720	41,16	167	
10,00 to < 100,00	13 367	198	2,06	13 775	20,89	27 371	13,72	17,20	10 419	75,64	395	
100,00 (default)	5 933	351	0,06	5 953	100,00	10 833	15,16	17,21	705	11,85	1 140	
	126 203	24 164	1,08	152 349	7,09	277 474	12,57	16,01	36 617	24,04	1 798	1 514
Retail – revolving credit												
0,00 to < 0,15		19	0,16	3	0,11	1 243	35,36			2,50		
0,15 to < 0,25	449	2 257	0,28	1 073	0,21	62 495	46,76		60	5,57	1	
0,25 to < 0,50	1 034	3 223	0,25	1 839	0,39	113 890	52,34		187	10,17	4	
0,50 to < 0,75	504	1 221	0,49	1 107	0,64	79 149	56,02		178	16,09	4	
0,75 to < 2,50	3 350	5 144	0,25	4 624	1,37	303 776	52,27		1 239	26,79	33	
2,50 to < 10,00	4 457	3 789	0,46	6 197	4,98	615 295	53,29		4 155	67,05	165	
10,00 to < 100,00	4 212	1 187	0,55	4 862	21,08	387 504	54,39		6 868	141,24	559	
100,00 (default)	1 595			1 595	100,00	2 756 927	56,42		238	14,87	1 335	
	15 601	16 840	0,34	21 300	14,13	4 320 279	53,28		12 925	60,67	2 101	1 480
SME – retail												
0,00 to < 0,15	149	160	0,74	268	0,09	1 623	17,20	1,46	11	4,15		
0,15 to < 0,25	447	580	0,52	750	0,21	5 676	20,73	2,67	68	9,02		
0,25 to < 0,50	1 457	1 994	0,62	2 697	0,42	16 401	19,44	3,20	358	13,28	2	
0,50 to < 0,75	1 597	1 246	0,72	2 500	0,64	13 616	20,98	3,27	457	18,28	3	
0,75 to < 2,50	10 778	4 438	0,81	14 374	1,35	37 502	20,68	3,53	3 560	24,77	41	
2,50 to < 10,00	16 989	4 735	0,70	20 293	5,16	130 985	28,02	2,53	8 941	44,06	312	
10,00 to < 100,00	2 015	708	0,19	2 150	18,76	10 000	23,46	2,16	1 104	51,32	97	
100,00 (default)	1 498	199	0,04	1 506	100,00	21 550	29,64	2,37	705	46,85	673	
	34 930	14 060	0,68	44 538	7,14	237 353	24,38	2,91	15 204	34,14	1 128	1 017

December 2		Original on-balance- sheet gross exposure	Off-balance- sheet exposures pre-CCF	Average CCF	EAD post-CRM and post-CCF	Average PD	Number	Average LGD	Average maturity	RWA	•	EL	
Basel asset o		Rm	Rm	%	Rm	%	of obligors	%	Years	Rm	%	Rm	Rm
Retail – othe													
	0,00 to < 0,15	10	77	0,99	87	0,06	666	41,31	8,49	7	7,76		
	0,15 to < 0,25	5	70	0,90	68	0,19	324	27,91	10,81	8	11,37		
	0,25 to < 0,50	93	216	0,69	242	0,35	881	38,15	9,93	56	22,98		
	0,50 to < 0,75	156	54	0,65	192	0,64	5 029	38,78	8,59	65	33,80		
	0,75 to < 2,50	9 006	228	0,56	9 133	1,64	107 096	27,12	4,22	3 154	34,53	40	
	2,50 to < 10,00	66 512	191	0,78	66 660	4,17	540 503	30,05	4,19	30 721	46,09	878	
	10,00 to < 100,00	25 876	64	0,88	25 932	21,62	311 448	35,69	4,22	21 032	81,10	1 991	
	100,00 (default)	5 973			5 973	100,00	161 517	41,00	4,28	1 025	17,17	2 635	
		107 631	900	0,73	108 287	13,40	1 127 464	31,79	4,28	56 068	51,78	5 544	4 474
Group													
	0,00 to < 0,15	226 440	59 853	0,76	270 979	0,05	48 864	23,65	2,07	27 596	10,18	46	
	0,15 to < 0,25	83 342	26 683	0,81	104 678	0,19	94 572	24,19	2,19	23 049	22,02	52	
	0,25 to < 0,50	83 941	27 870	0,80	104 439	0,38	178 126	21,39	1,98	27 522	26,35	86	
	0,50 to < 0,75	39 236	10 137	0,67	42 652	0,64	131 457	20,22	1,89	12 454	29,20	55	
	0,75 to < 2,50	115 040	22 161	0,81	132 937	1,34	531 746	22,08	1,88	53 608	40,33	416	
	2,50 to < 10,00	161 029	20 290	0,81	176 857	4,31	1 373 097	26,90	1,13	102 090	57,73	2 178	
	10,00 to < 100,00	52 524	4 301	0,71	55 499	21,28	738 259	31,85	0,56	57 211	103,08	3 837	
	100,00 (default)	18 115	1 266	0,24	18 419	100,00	2 952 324	30,34	0,77	7 035	38,19	6 539	
Total group		779 667	172 561	0,78	906 460	4,49	6 048 445	24,33	1,74	310 565¹	34,26	13 209	11 226
Slotting exp	osure	7 288								8 918		177	153
Total includi	ng slotting	786 955								319 483		13 386	11 379

 $<sup>^{1}</sup>$  RWA excludes specialised lending – HVCRE, which is included under the Slotting Approach.

CR7: AIRB - EFFECT ON RWA OF CREDIT RISK DERIVATIVES USED AS CRM TECHNIQUES1

		Jun 2	2018	Jun :	2017	Dec	2017
		Pre-credit		Pre-credit		Pre-credit	
		derivatives	Actual	derivatives	Actual	derivatives	Actual
Rm		RWA <sup>2</sup>					
1	Sovereign – Foundation Internal Ratings-based (FIRB)						
2	Sovereign – AIRB	9 410	9 410	4 514	4 514	7 180	7 180
3	Banks – FIRB						
4	Banks – AIRB	7 949	7 949	9 344	9 344	6 829	6 829
5	Corporate – FIRB						
6	Corporate – AIRB	117 036	117 036	108 529	108 529	115 832	115 832
7	Specialised lending – FIRB						
8	Specialised lending – AIRB	54 444	54 444	53 354	53 354	51 576	51 576
9	Retail – qualifying revolving	14 400	14 400	12 500	12 500	12 925	12 925
10	Retail – residential-mortgage exposures	36 216	36 216	44 331	44 331	36 617	36 617
11	Retail –SME	16 006	16 006	15 572	15 572	15 204	15 204
12	Other retail exposures	58 778	58 778	53 693	53 693	56 068	56 068
13	Equity – FIRB						
14	Equity – AIRB						
15	Purchased receivables – FIRB						
16	Purchased receivables – AIRB						
	Public sector entities – AIRB	7 674	7 674	6 345	6 345	6 661	6 661
	Local government and municipalities – AIRB	1 951	1 951	2 025	2 025	1 673	1 673
17	Total	323 864	323 864	310 207	310 207	310 565	310 565
	Slotting exposure	8 323	8 323	8 217	8 217	8 918	8 918
	Total including slotting exposure	332 187	332 187	318 424	318 424	319 483	319 483

<sup>&</sup>lt;sup>1</sup> No credit derivatives were applied as CRM during the year.

### **CR8: RWA FLOW STATEMENTS OF CREDIT RISK EXPOSURES UNDER AIRB**

		Jun 2018	Jun 2017	Dec 2017
Rm		RWA <sup>1</sup>	RWA <sup>1</sup>	RWA <sup>1</sup>
1	RWA at the end of the previous reporting period	319 483	324 432	323 555
2	Asset size	10 887	(664)	(1 324)
3	Asset quality	(487)	(3 315)	9 224
4	Model updates	1 500	(2 059)	(11 839)
5	Methodology and policy			
6	Acquisitions and disposals			
7	Foreign exchange movements	804	30	(133)
8	Other			
9	RWA at the end of the reporting period	332 187	318 424	319 483

<sup>&</sup>lt;sup>1</sup> RWA includes specialised lending – HVCRE.

### **Balance sheet coverage ratios**

The specific coverage ratio is the amount of specific impairments that have been raised for total defaulted loans and advances. This is the inverse of the expected-recoveries ratio. Expected recoveries are equal to defaulted loans and advances less specific impairments, as specific impairments are raised for any shortfall that would arise after all recoveries have been taken into account. Expected recoveries of defaulted loans and advances include recoveries as a result of the liquidation of security or collateral as well as recoveries as a result of a client curing or partial client repayments.

Total coverage is defined as the amount of total impairments as a percentage of defaulted loans and advances.

The absolute value of expected recoveries on or from defaulted accounts (which includes security values) will generally increase as the number of defaults increase. The expected recovery amount will in most instances be less than the total defaulted exposure, as 100% of the defaulted loan is seldom recovered.

A decrease in the coverage ratio (or increase in the expected recoveries ratio) may arise as a result of the following:

- Expected recoveries improving due to improved market conditions and therefore lower LGD.
- Higher curing levels.
- A change in the defaulted product mix, with a greater percentage of products having a higher security value and therefore a lower specific impairment, such as secured products (home loans and commercial real estate).
- An increase in the value of collateral as an input into the LGD calculation resulting in a decrease in the LGD and a decrease in specific impairments.
- A change in the mix of new versus older defaults, as for most products the recoveries expected from defaulted clients decrease over time.
- A change in the writeoff policy, ie if the period is extended prior to writing off a deal, there will be a longer period in which recoveries can be realised.

<sup>&</sup>lt;sup>2</sup> RWA excludes specialised lending – HVCRE, which is included under the Slotting Approach.

The Nedbank Group portfolio and specific-coverage ratio increased on transition to IFRS 9 to 0,93% and 39,6% respectively. The Nedbank Group specific-coverage ratio decreased to 35,2% in June 2018 due to a change in defaulted-advances mix, which saw a higher proportion of CIB's defaulted loans and advances compared with those at 1 January 2018.

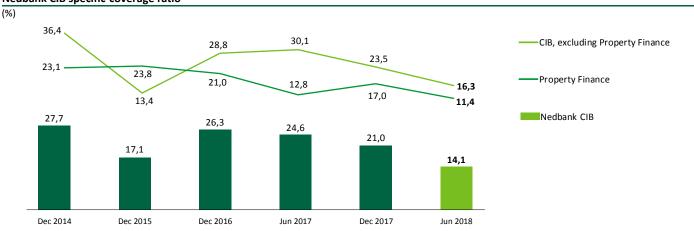
The CIB specific-coverage ratio decreased to 14,1%. In CIB impairments are considered on a client-by-client basis and are adequately provided for, based on specific security held, and the commercial-mortgages portfolio is collateralised, with low loan-to-value (LTV) ratios.

RBB specific-coverage ratio increased on transition to IFRS 9 due to improved modelling on performing defaults and decreased marginally to 41,8% with Retail remaining stable and Business Banking decreasing slightly to 32,6%.

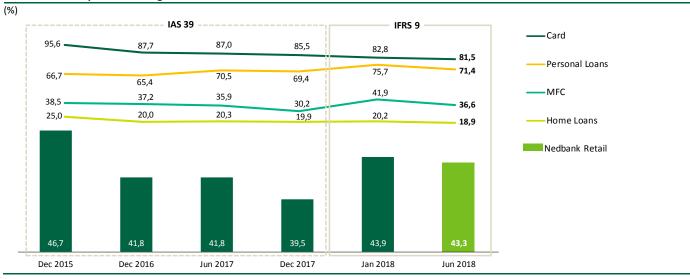
The Nedbank Group portfolio coverage ratio has decreased marginally to 0,91% due mainly to defaults and positive reratings of specific counters in CIB.

- The Property Finance portfolio coverage ratio increased marginally to 0,28%.
- RBB decreased its portfolio coverage ratio marginally due to a decrease in impairments in Business Banking to 0,65%, driven by proactive and effective risk management practices.

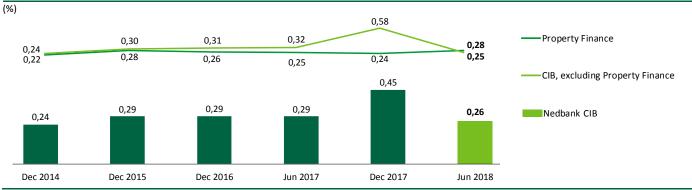


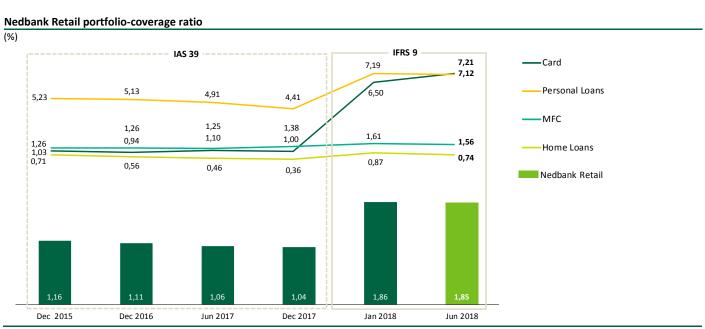


### **Nedbank Retail specific-coverage ratio**



### Nedbank CIB portfolio-coverage ratio





For more information on balance sheet coverage ratios, please refer to the Nedbank Group Limited Interim Results for the six months ended 30 June 2018.

## **CR10: AIRB SPECIALISED LENDING**

				Special	ised lendin	g other than	HVCRE				
		On-	Off-			Exp	osure amou	ınt			
Regulatory categories Rm	Remaining maturity	balance- sheet amount	balance- sheet amount	RW %	Project finance	Object finance	Commo -dities finance	IPRE	Total	RWA	Expected losses
June 2018											
Strong	Less than 2,5 years Equal to or more than 2,5 years			50 70							
Good	Less than 2,5 years Equal to or more than 2,5 years			70 90							
Satisfactory		164	33	115				197	197	239	7
Weak				250							
Default		209	13					223	223	271	8
Total		373	46					420	420	510	15
June 2017											
Strong	Less than 2,5 years Equal to or more than 2,5 years			50 70							
Good	Less than 2,5 years Equal to or more than 2,5 years			70 90							
Satisfactory Weak	,. ,	438	130	115 250				568	568	692	22
Default		245		250				245	245		92
Total		683	130					813	813	692	114
December 20	17										
Strong	Less than 2,5 years Equal to or more than 2,5 years			50 70							
Good	Less than 2,5 years Equal to or more than 2,5 years			70 90							
Satisfactory		451	41	115				492	492	600	19
Weak				250							
Default											
Total		451	41					492	492	600	19

				Specialised le	nding – HVCRE		
Regulatory categories Rm	Remaining maturity	On-balance- sheet amount	Off-balance- sheet amount	RW %	Exposure amount	RWA	Expected losses
June 2018					<u>-</u>		
Strong	Less than 2,5 years			70			
	Equal to or more than 2,5 years	21		95	21	21	
Good	Less than 2,5 years	4 047	381	95	4 428	4 459	24
	Equal to or more than 2,5 years	1 908	49	120	1 958	2 490	11
Satisfactory		653	83	140	736	1 093	28
Weak		98		250	98	261	11
Default		506	7		513		98
Total		7 233	520		7 754	8 324	172
June 2017							
Strong	Less than 2,5 years			70			
	Equal to or more than 2,5 years	4 146	225	95	4 371	4 402	24
Good	Less than 2,5 years			95			
	Equal to or more than 2,5 years	1 200	24	120	1 224	1 557	7
Satisfactory		901	81	140	982	1 458	37
Weak		297	5	250	302	800	33
Default		414	4		418		62
Total		6 958	339		7 297	8 217	163
December 20	17						_
Strong	Less than 2,5 years			70			
	Equal to or more than 2,5 years	39		95	39	40	
Good	Less than 2,5 years	4 265	728	95	4 993	5 028	27
	Equal to or more than 2,5 years	1 545	34	120	1 579	2 008	8
Satisfactory		865	109	140	974	1 446	37
Weak		149		250	149	396	16
Default		423	4		427		90
Total		7 286	875		8 161	8 918	178

		Equ	ities under the SRW	A	
Categories Rm	On-balance-sheet amount	Off-balance-sheet amount	RW %	Exposure amount	RWA
June 2018					
Exchange-traded equity exposures	58		300	58	184
Private-equity exposures	3 511		400	3 511	14 887
Other equity exposures	3 850		400	3 850	16 322
Total	7 419			7 419	31 393
June 2017					
Exchange-traded equity exposures	31		300	31	99
Private-equity exposures	821		400	821	3 481
Other equity exposures	4 520		400	4 520	19 165
Total	5 372			5 372	22 745
December 2017					
Exchange-traded equity exposures	36		300	36	115
Private-equity exposures	808		400	808	3 425
Other equity exposures	5 516		400	5 516	23 387
Total	6 360			6 360	26 927

## **Backtesting of PD per portfolio**

Pillar 3 credit parameter backtesting is carried out on an annual basis for the relevant calendar year. This avoids unwanted fluctuations due to seasonality effects that could arise if a shorter time horizon is considered. For the December 2017 AIRB credit parameter backtesting please refer to the December 2017 Pillar 3 Report.

# Liquidity risk and funding

The primary role of a bank in terms of financial intermediation is to transform short-term deposits into longer-term loans. By fulfilling this role, banks are inherently susceptible to liquidity mismatches and consequently funding and market liquidity risks. Through the robust Liquidity Risk Management Framework, Nedbank Group manages the funding and market liquidity risk to ensure that banking operations continue uninterrupted under normal and stressed conditions. The key objectives that underpin the Liquidity Risk Management Framework include maintaining financial market confidence at all times, protecting key stakeholder interests and meeting regulatory liquidity requirements.

In terms of measuring, managing and mitigating liquidity mismatches, Nedbank focuses on two types of liquidity risk, namely funding liquidity risk and market liquidity risk. Funding liquidity risk is the risk that Nedbank Group is unable to meet its payment obligations as they fall due. These payment obligations could emanate from depositor withdrawals or the inability to roll over maturing debt or meet contractual commitments to lend. Market liquidity risk is the risk that the group will be unable to sell assets, without incurring an unacceptable loss, in order to generate cash required to meet payment obligations under a stress liquidity event.

Liquidity risk management is a vital risk management function in all entities across all jurisdictions and currencies, and is a key focus for Nedbank Group.

## Liquidity risk governance and policy

The board of directors retains ultimate responsibility for the effective management of liquidity risk. Through the GRCMC (a board subcommittee), the board has delegated its responsibility for the management of liquidity risk to the Group Alco.

Nedbank Group's Liquidity Risk Management Framework articulates the board-approved risk appetite in the form of limits and guidelines, and sets out the responsibilities, processes, reporting and assurance required to support the management of liquidity risk. The Liquidity Risk Management Framework is reviewed annually by Group Alco and approved by the GRCMC.

Within Nedbank Group's BSM Cluster, a dedicated funding and liquidity function is responsible for the strategic management of funding and liquidity across the group. The group's daily liquidity requirements are managed by an experienced CFD within Group Treasury. In the context of the board-approved Liquidity Risk Management Framework, BSM and the CFD are responsible for proactively managing liquidity risk at an operational, tactical and strategic level.

## Key areas of focus

Operational and tactica **Operational liquidity** Daily Strategic and tactical **Tactical and strategic** liquidity Weekly, monthly, quarterly and annually

Projected daily liquidity requirements Intraday liquidity risk management Daily clearing and settlement Liquid assets and cash reserve requirements

Participation in the money market shortage and interbank reliance

Operation within approved liquidity risk limits and guidelines

Managing and maintaining market access

Tactically managing seasonal and cyclical liquidity requirements

Liquidity risk appetite and strategy

Balance sheet optimisation

Funding base diversification

Liquidity buffers and internal assessment of liquidity self-sufficiency for stress

Pricing for liquidity risk through the funds transfer pricing process

**Enhancing structural liquidity** 

Best international practice

In terms of the overall liquidity risk management process, independent oversight and assurance are provided by Group Market Risk Monitoring (GMRM) and GIA, which conduct independent reviews.

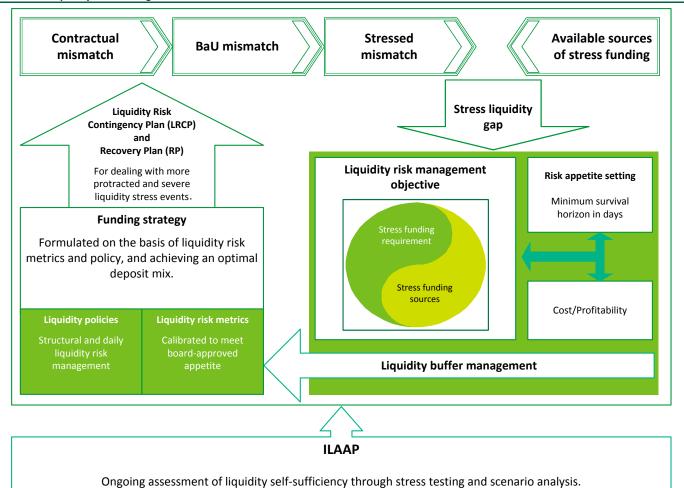
In the case of Nedbank Group's subsidiaries and foreign branches, liquidity risk is managed through the individual Alco's established in each of these businesses. These businesses are required to have appropriate governance structures, processes and practices designed to identify, measure, manage and mitigate liquidity risk in accordance with the group's Liquidity Risk Management Framework. These businesses are required to report into the Group Alco on a monthly basis.

## Liquidity Risk Management Framework and management processes

Based on the BCBS's principles for sound liquidity risk management and other best-practice principles, Nedbank Group's Liquidity Risk Management Framework takes into account all sources and uses of liquidity and seeks to optimise the balance sheet by balancing the tradeoff between liquidity risk on the one hand and cost or profitability on the other. This optimisation process (as depicted below) is managed by taking cognisance of:

- Nedbank Group's contractual maturity mismatch between assets and liabilities.
- The BaU mismatch arising from normal market conditions.
- The stress mismatch or stress funding requirement likely to arise from a continuum of plausible stress liquidity scenarios.
- The quantum of stress funding sources available to meet a scenario-specific stress funding requirement.

### **Nedbank's Liquidity Risk Management Framework**



Embedded within the Liquidity Risk Management Framework is Nedbank Group's ILAAP. Through the ILAAP, BSM seeks to maintain appropriate liquidity buffers while continually reviewing the appropriateness of the liquidity risk metrics, the liquidity policy, the funding strategy and the contingency funding and liquidity plan. These individual components of the Liquidity Risk Management Framework should at all times support the board-approved risk appetite, which is to ensure that stress funding sources are sufficient to meet stress funding requirements for a given time horizon.

Review and assessment of all components making up and/or supporting the Liquidity Risk Management Framework.

The ILAAP has therefore been formulated on the basis of ensuring that the framework remains sound in terms of measuring, monitoring, managing and mitigating liquidity risk, taking cognisance of best-practice and regulatory developments.

Based on the most recent internal review process, it is evident that Nedbank Group is compliant with both the Basel Principles for Sound Liquidity Risk Management and the principles embedded in the Basel III liquidity standards, which have in turn been encapsulated in the Liquidity Risk Management Framework and ILAAP.

Nedbank Group's internal review and assessment process, which is designed to ensure that all components making up the Liquidity Risk Management Framework remain robust, is depicted graphically below.

### Nedbank's internal review and assessment process of the Liquidity Risk Management Framework

### Annually

Liquidity risk policies

Liquidity Risk
Contingency Plan (LRCP) and
Recovery Plan (RP)

Liquidity risk appetite, limits, guidelines and buffers

Liquidity model assumptions, principles and methodologies

Principles and methodologies applied to pricing assets and liabilities for liquidity risk

Annual funding strategy (designed to support liquidity objectives and balance sheet optimisation)

Independent review of liquidity risk management in subsidiaries and branches

#### Semi-annually/Quarterly

Liquidity risk premium and charges applied through the Funds Transfer Pricing Framework

Appropriateness of the continuum of liquidity stress-testing scenarios

Off-balance-sheet liquidity risk (loan covenants, securitisation vehicles, derivative positions, revocable and irrevocable commitments, etc)

Liquidity early-warning indicators

Best practice and regulatory developments

#### Monthly/Daily

Monthly funding and liquidity review: (As reported to Group Alco)

### Key areas of focus

- Compliance with limits, guidelines and buffers
- Prevailing market conditions from a funding and market liquidity risk perspective
- Actual asset/liability growth versus funding plan – impact on liquidity risk management objectives
- Liquidity adequacy based on stress testing and scenario analysis
- Depositor concentration risk
- Rollout of liquidity risk mitigating strategies
- Liquidity risk within subsidiaries and branches

### Daily funding and liquidity review: Key areas of focus

- Projected liquidity requirements
- Compliance with limits, guidelines and buffers
- Cash reserves and liquid assets
- Participation in the money market shortage (MMS)
- Settlement and clearing
- Access to market

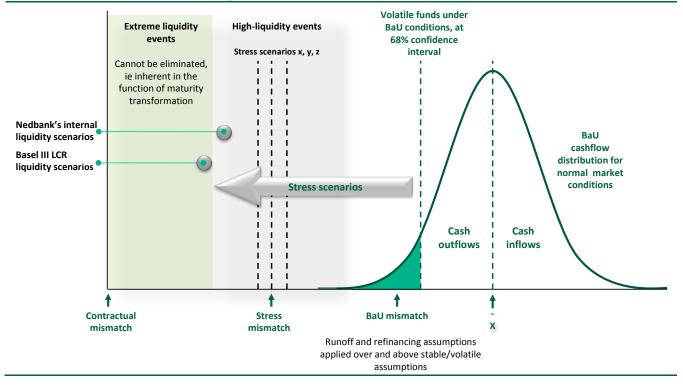
As presented on the previous page, the Liquidity Risk Management Framework is supported by a number of management processes designed to manage and mitigate liquidity risk under normal and stressed market conditions.

The key management processes and activities are summarised below:

- Intraday liquidity risk management
  - The need to manage and control intraday liquidity in real time is recognised by the group as a critical process. The CFD is responsible for ensuring that the bank always has sufficient intraday liquidity to meet any obligations it may have in the clearing and settlement systems. In addition, net daily funding requirements are forecasted by estimating daily rollovers and withdrawals, and managing the funding pipeline of new deals. The CFD is responsible for maintaining close interaction with the bank's larger depositors in order to manage their cashflow requirements and the consequential impact on the bank's intraday liquidity position.
- Liquidity buffer portfolio management
  - A portfolio of marketable and highly liquid assets, which could be liquidated to meet unforeseen or unexpected funding requirements, is maintained. The market liquidity by asset type (and for a continuum of plausible stress scenarios) is considered as part of the internal stress testing and scenario analysis process. While BSM is responsible for the strategic and tactical management of seasonal and cyclical HQLA requirements, CFD is responsible for the operational execution of BSM and Group Alco strategy.
- Liquidity stress testing and scenario analysis
  - To ensure regulatory compliance and the ability to meet future liquidity requirements the BSM Cluster performs extensive stress testing and scenario analysis, at both a bank and industry level, to appropriately size the liquidity buffer portfolio in the most optimal manner for seasonal, cyclical and/or stress events. Stress testing and scenario analysis focus on estimating if and when the liquidity buffer could be significantly eroded beyond some tolerable level in order to preemptively facilitate the formulation of mitigating actions designed to ensure that the size of the liquidity buffer will always remain appropriate for future forecast liquidity requirements. Based on the scenario analysis and stress testing described above, which also include periodic liquidity simulations, the BSM Cluster is able to do the following:
  - Evaluate the impact of various scenarios on the group's liquidity.
  - □ Set limits and guidelines designed to position the group better for a stress liquidity event.
  - ☐ Formulate appropriate actions designed to reduce the severity of a liquidity crisis.
  - □ Determine appropriate funding strategies and initiatives designed to support liquidity risk mitigation.
  - Right-size the surplus liquidity buffer portfolio to meet stress funding requirements.

The objective of scenario analysis and stress testing is to identify potential weaknesses or vulnerabilities, thereby enabling the group to formulate appropriate strategies designed to mitigate potential weaknesses. Nedbank Group's approach to estimating the stress maturity mismatch in relation to the BaU and contractual maturity mismatch is depicted graphically below.

### Contractual versus BaU versus stress maturity mismatch



In terms of assessing the bank's liquidity risk through stress testing and scenario analysis, Nedbank uses both its own internally based liquidity risk models and the outputs of the Basel III LCR, noting that Nedbank has exceeded the minimum LCR regulatory requirement during 2018 and will continue to achieve full compliance with the LCR minimum requirement during the phase-in period, which commenced in January 2015 with a minimum requirement of 60% and increasing 10% per annum to 100% by January 2019. While the Basel III LCR liquidity scenario assumes more extreme levels of stress, Nedbank recognises, in terms of the internally based liquidity risk models, that various structurally favourable factors contributing positively towards liquidity risk mitigation in SA are not taken into account in the LCR approach. These include, for example, the closed nature of SA's money markets, resulting from exchange controls and the mechanics of the domestic settlement and clearing system, the higher proportion of LAC compared with many international jurisdictions, and Nedbank's low foreign currency funding reliance and hence low refinancing risk associated with external markets.

Stress and scenario testing is a key risk management process that complements sound liquidity risk management and contingency planning.

- Funding strategy formulation and execution
  - In terms of achieving the board-approved liquidity risk appetite, the BSM Cluster formulates a detailed funding strategy on an annual basis, which is approved by Group Alco. The execution of the annual funding plan is then monitored monthly through the Funding Strategy Forum, the Transactional Deposits Forum and Group Alco. In accordance with the current funding strategy, the key objectives can be summarised as follows:
  - Portfolio tilt towards an optimal mix of wholesale, commercial and household deposits, with a specific focus on growing transactional-deposits market share.
  - □ Targeting a funding profile designed to achieve a contractual and BaU maturity mismatch aligned with the board-approved liquidity risk appetite.
  - Diversifying the funding base through capital market issuance using medium-term notes and securitisation programmes, bilateral and syndicated loans and structured note offerings, taking into account domestic and international investor demand and pricing spreads.
  - Achieving the lowest weighted-average cost of funding within the context of the targeted liquidity risk profile.
- Contingency funding and liquidity planning
  - Nedbank Group's LRCP, as set out in the Liquidity Risk Management Framework, is designed to protect depositors, creditors and shareholders under adverse liquidity situations.
  - Nedbank's liquidity risk policies and LRCP were reviewed in November 2017, in accordance with the annual review process.

The LRCP has been formulated in the belief that early detection, advance preparations and prompt responses can contribute to liquidity crisis avoidance or minimisation, and that accurate, timely and coordinated communication both internally and externally is essential for managing a crisis situation. The LRCP establishes guidelines for managing a liquidity crisis, identifying early-warning signs of a possible liquidity event and the need for heightened liquidity risk monitoring and reduced liquidity risk exposure.

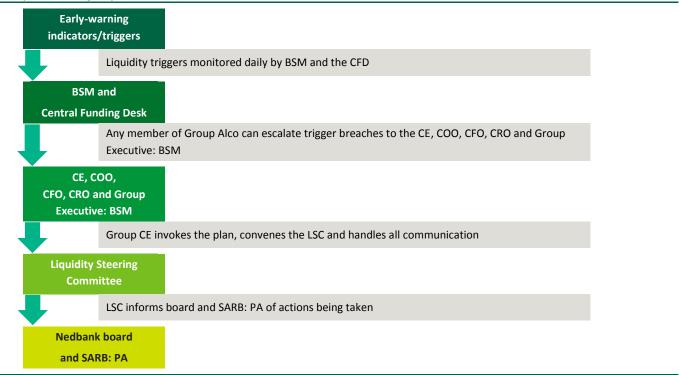
In addition, the LRCP identifies the individuals responsible for formulating and executing Nedbank Group's response to a liquidity event through the Liquidity Steering Committee (LSC).

Nedbank has also developed detailed RPs that establish Nedbank's framework for dealing with crises emanating from a capital, liquidity and business continuity or operational event. These plans were submitted and reviewed by the SARB: PA with no issues raised during the RP onsite banking supervision exercise that took place in February 2018.

In terms of Nedbank's Liquidity Risk Management Policy, it is a requirement that the LRCP and the RP be tested periodically to ensure their effectiveness and operational feasibility. The LRCP and RP were rigorously tested in August 2018 through a liquidity simulation that involved all relevant internal and external participants. The simulation was managed independently by one of the large audit firms, and forms part of the group's overall approach to stress testing. The group performed well during this exercise and any areas of improvement identified in the final liquidity simulation report, which the audit firm is currently preparing, will be implemented as appropriate.

The process for invoking the LRCP is depicted graphically below.

### **Liquidity Risk Contingency Plan**



Nedbank has developed an early-warning indicator or triggers report that is produced daily to identify any signs that a liquidity event may be prevailing or is about to occur, as evidenced by internal and/or external events. Any member of Group Alco can escalate trigger breaches to the CE, COO, CFO, CRO and Group Executive: BSM as part of the LRCP invocation process presented in the graphic above.

## Liquidity risk portfolio review

### SUMMARY OF NEDBANK GROUP LIQUIDITY RISK AND FUNDING PROFILE

		Jun	Jun	Dec
		2018	2017	2017
Total sources of quick liquidity	(Rm)	203 800	189 984	195 414
Total HQLA	(Rm)	148 675	144 568	138 180
Other sources of quick liquidity	(Rm)	55 125	45 416	57 234
Total sources of quick liquidity (as a percentage of total assets)	(%)	20,0	19,7	19,9
Long-term funding ratio (three-month average)	(%)	28,4	33,1	27,0
Retail Savings Bond	(Rm)	28 346	22 308	24 874
Senior unsecured debt	(Rm)	36 736	36 892	36 255
Total capital market issuance (including senior unsecured debt and tier 2 capital)	(Rm)	53 680	57 568	54 098
Reliance on negotiable certificates of deposit (as a percentage of total deposits)	(%)	12,0	10,6	10,0
Reliance on foreign currency deposits (as a percentage of total deposits)	(%)	2,3	3,9	2,8
Loan-to-deposit ratio	(%)	89,0	93,1	92,1
Basel III liquidity ratios				
LCR <sup>1</sup>	(%)	106,9	104,6	116,2
Minimum regulatory LCR requirement	(%)	90	80	80
NSFR <sup>2</sup>	(%)	116,4	> 100	> 100

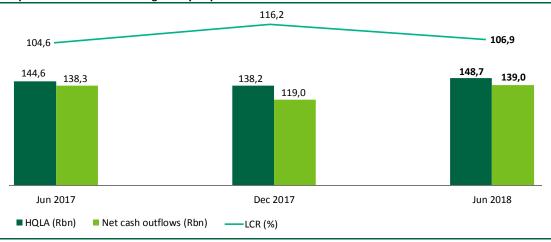
<sup>&</sup>lt;sup>1</sup> Only banking and/or deposit-taking entities are included in the group LCR and the group ratio represents an aggregation of the relevant individual net cash outflows and the individual HQLA portfolios across all banking and/or deposit-taking entities, where surplus HQLA holdings in excess of the minimum requirement of 90% have been excluded from the aggregated HQLA number in the case of all non-SA banking entities. The above figures reflect the simple average of daily observations over the quarter ending June 2018 for Nedbank Limited and the simple average of the month-end values at 30 April 2018, 31 May 2018 and 30 June 2018 for all non-SA banking entities.

Nedbank Group remains well funded with a strong liquidity position, underpinned by a significant quantum of long-term funding, an appropriately sized surplus liquid-asset buffer, a strong loan-to-deposit ratio consistently below 100% and a low reliance on interbank and foreign currency funding.

The group's quarterly average LCR exceeded the minimum regulatory requirement of 90% in 2018 and 100% effective from 1 January 2019, with the group maintaining appropriate operational buffers designed to absorb seasonal and cyclical volatility in the LCR.

- The LCR, calculated using the simple average of daily observations over the quarter ending June 2018 for Nedbank Limited and the simple average of the month-end values at 30 April 2018, 31 May 2018 and 30 June 2018 for all non-SA banking entities, was 106,9%.
  - Nedbank's portfolio of LCR-compliant HQLA increased to a quarterly average of R148,7bn, up from December 2017 when the portfolio amounted to R138,2bn. The June 2018 HQLA portfolio has increased from R144,6bn in June 2017, due to balance sheet growth and the LCR phase-in requirements, where in terms of a year-on-year analysis seasonality is less of a factor when compared with the year-to-date analysis.
  - □ The LCR has increased year on year, as a result of an increase in HQLA, while NCOFs remained fairly constant. However, the NCOFs are higher in June 2018, than in December 2017, when seasonally market participants typically term-out more deposits ahead of year-end December each year than they do in June each year, resulting in lower year-end December NCOFs.
  - Nedbank will continue to procure additional HQLA to support balance sheet growth and the LCR phase-in, while maintaining appropriately sized surplus liquid-asset buffers.

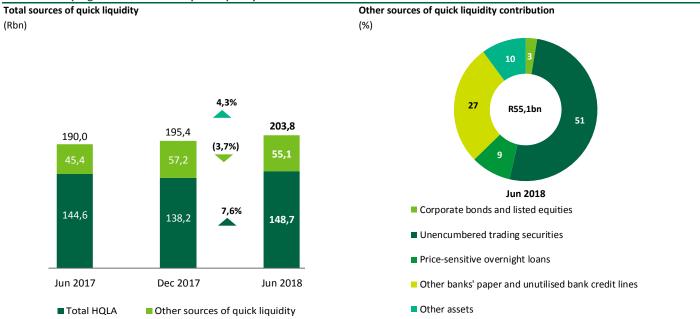
### Nedbank Group LCR exceeds minimum regulatory requirements



<sup>&</sup>lt;sup>2</sup> Only banking and/or deposit-taking entities are included in the group NSFR and the group data represents a consolidation of the relevant individual assets, liabilities and off- balance-sheet items.

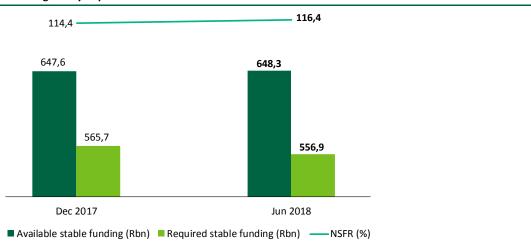
■ In addition to the HQLA portfolio maintained for LCR purposes, Nedbank also identifies other sources of quick liquidity, which can be accessed in times of stress. Nedbank's combined portfolio of HQLA and other sources of quick liquidity collectively amounted to R203,8bn at June 2018 and represented 20,0% of total assets.

Nedbank Group significant sources of quick liquidity



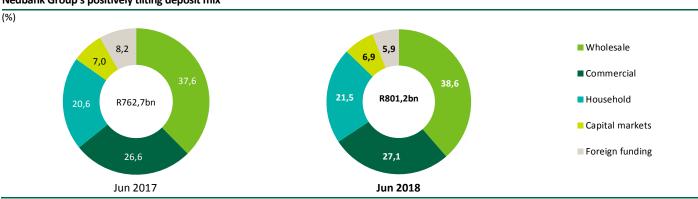
Nedbank exceeded the minimum NSFR regulatory requirement of 100% effective from 1 January 2018, with a June 2018 ratio of 116,4%. The key focus in terms of the NSFR is to achieve ongoing compliance in the context of balance sheet optimisation.

### Nedbank Group NSFR exceeds minimum regulatory requirements



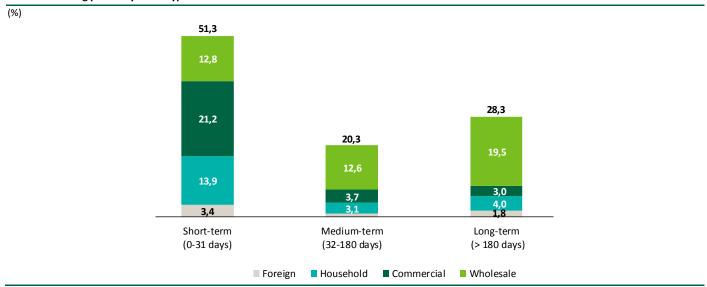
In 2018 the emphasis on tilting Nedbank's deposit mix towards Basel III-friendly deposits will continue, with a focus on providing competitive and innovative transactional and investment products and an ongoing emphasis on meeting client needs through product, pricing and innovation. Year to date June 2018 Nedbank has proportionately increased its reliance on household and commercial deposits, while wholesale funding reliance increased in response to reduced marginal cost foreign funding.

### Nedbank Group's positively tilting deposit mix



As presented below wholesale funding contributes positively to managing the funding profile given that wholesale depositors have the greatest appetite for longer-term funding which is Basel III positive.

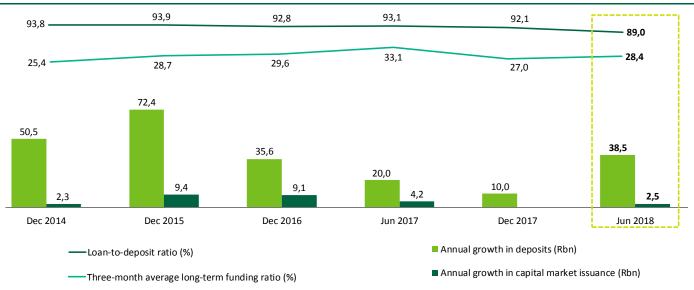
### Nedbank funding profile by client-type



- A strong funding profile has been maintained in the first half of 2018, with Nedbank recording a three-month average long-term funding ratio of 28,4% in the second quarter of 2018. The proportional tilt towards more Basel III-friendly RBB, Wealth and RoA deposits has contributed positively to ensuring cost-effective regulatory compliance, while maintaining a strong balance sheet position. Nedbank, however, continues to run a more prudent long-term funding profile when compared with the industry average of approximately 25,1%.
  - Nedbank Retail Savings Bonds growth of R3,5bn contributed positively to the longer-term funding profile, as well as the strategy of diversifying Nedbank's funding base, bringing the total amount issued to R28,3bn.
  - □ In addition, Nedbank successfully issued R2,4bn in senior unsecured debt, while R1,9bn matured during the first half of the year.
  - □ Nedbank issued tier 2 capital instruments of R2,0bn during the first half of the year in line with the group's capital plan.
- Nedbank's reliance on foreign currency deposits as a percentage of total deposits remained small, decreasing to 2,3%. However, increasing retail and commercial foreign currency deposits remain a key component of Nedbank's strategy to diversify its funding sources and to fund foreign advances growth at attractive interest rates.

The group's annual board-approved ICAAP, ILAAP and updated RPs include appropriate consideration of the managed separation with Old Mutual, with no material impact expected.

## Nedbank Group funding and liquidity profile



## Supplementary liquidity risk information

In accordance with the provisions of section 6(6) of the Banks Act (Act No 94 of 1990), banks are directed to comply with the relevant LCR disclosure requirements, as set out in directive 6/2014 and directive 11/2014. The table below sets out Nedbank's LCR at an aggregated group and bank solo level. The aggregated LCR consists of only banking and/or deposit-taking entities and represents an aggregation of the relevant individual NCOF and the individual HQLA portfolios, with surplus HQLA holdings in excess of the minimum requirement of 90% excluded from the aggregated HQLA number in the case of all non-SA banking entities. The disclosure reflects the simple average of daily observations over the quarter ending June 2018 for Nedbank Limited and the simple average of the month-end values at 30 April 2018, 31 May 2018 and 30 June 2018 for all non-SA banking entities.

### LIQ1: NEDBANK GROUP AND NEDBANK LIMITED LIQUIDITY COVERAGE RATIO

		Nedbank Gr	oup Limited	Nedbank Limited		
		Total	Total	Total	Total	
		unweighted <sup>1</sup>	weighted <sup>2</sup>	unweighted¹	weighted <sup>2</sup>	
June	2018	value	value	value	value	
Rm		(average)	(average)	(average)	(average)	
1	Total HQLA		148 675		143 061	
	Cash outflows					
2	Retail deposits and deposits from small-business clients, of which	177 418	17 570	160 143	16 014	
3	stable deposits	3 442	172			
4	less stable deposits	173 976	17 398	160 143	16 014	
5	Unsecured wholesale funding, of which	251 871	129 708	217 616	112 983	
6	operational deposits (all counterparties) and deposits in institutional networks of					
	cooperative banks	119 797	29 949	102 131	25 533	
7	non-operational deposits (all counterparties)	131 285	98 970	115 008	86 973	
8	unsecured debt	789	789	477	477	
9	Secured wholesale funding	24 566		24 614		
10	Additional requirements, of which	109 936	20 453	97 390	16 937	
11	outflows related to derivative exposures and other collateral requirements	1 553	1 553	1 508	1 508	
12	outflows related to loss of funding on debt products					
13	credit and liquidity facilities	108 383	18 900	95 882	15 429	
14	Other contractual funding obligations					
15	Other contingent funding obligations	174 816	8 960	165 317	8 457	
16	Total cash outflows	738 607	176 691	665 080	154 391	
	Cash inflows					
17	Secured lending	9 318	20	9 318	20	
18	Inflows from fully performing exposures	56 103	37 498	39 444	22 894	
19	Other cash inflows	5 291	5 144	969	969	
20	Total cash inflows	70 712	42 662	49 731	23 883	
21	Total HQLA		148 675		143 061	
22	Total NCOF <sup>3</sup>		139 043		130 508	
23	LCR (%)		106,9		109,6	

<sup>&</sup>lt;sup>1</sup> Unweighted values are calculated as outstanding balances maturing or callable within 30 days (for inflows and outflows).

<sup>&</sup>lt;sup>2</sup> Weighted values are calculated after the application of respective haircuts (for HQLA) or inflow and outflow rates (for inflows and outflows).

<sup>&</sup>lt;sup>3</sup> Total cash outflows less total cash inflows may not be equal to total NCOF to the extent that regulatory caps have been applied to cash inflows as specified by the regulations.

As per Basel Pillar 3 disclosure requirements, Nedbank's NSFR for the consolidated banking and/or deposit-taking entities as well as at a bank solo level are reflected in the respective tables below.

## LIQ2: NEDBANK GROUP NET STABLE FUNDING RATIO

			ty				
Jun	e 2018		No		6 months		Weighted
Rm			maturity	< 6 months	to < 1 year	≥ 1 year	value
ASI	item						
1	Capital	_	87 790				87 790
2	Regulatory capital		83 654				83 654
3	Other capital instruments	L	4 136				4 136
4	Retail deposits and deposits from small-business clients	-		214 581	13 539	23 194	228 664
5	Stable deposits			3 259	1		3 096
6	Less stable deposits			211 322	13 538	23 194	225 568
7	Wholesale funding	_		414 557	67 715	132 057	324 415
8	Operational deposits			135 063			67 532
9	Other wholesale funding			279 494	67 715	132 057	256 883
10	Liabilities with matching interdependent assets						
11	Other liabilities	-	11 218	6 793		11 061	7 478
12	NSFR derivative liabilities					9 560	
13	All other liabilities and equity not included in the above						
	categories	L	11 218	6 793		1 501	7 478
14	Total ASF						648 347
	RSF item						
15	Total NSFR HQLA						12 582
16	Deposits held at other financial institutions for operational						
	purposes						
17	Performing loans and securities			188 916	70 329	474 866	489 702
18	Performing loans to financial institutions secured by level 1						
	HQLA			11 834			1 183
19	Performing loans to financial institutions secured by non-level 1			F4 C24	7 202	26.042	27.452
20	HQLA and unsecured performing loans to financial institutions			51 624	7 393	26 013	37 453
20	Performing loans to non-financial corporate clients, loans to retail and small-business clients and loans to sovereigns, central						
	banks and PSEs, of which			112 246	57 239	314 330	349 065
21	with a risk weight of less than or equal to 35% under the	Г					
	Basel II Standardised Approach for credit risk					14 291	9 289
22	Performing residential mortgages, of which	-		9 083	2 489	108 990	76 629
23	with a risk weight of less than or equal to 35% under the	Г					
	Basel II Standardised Approach for credit risk			9 083	2 489	108 990	76 629
24	Securities that are not in default and do not qualify as HQLA,	_					
	including exchange-traded equities			4 129	3 208	13 908	15 490
25	Assets with matching interdependent liabilities						
<b>26</b>	Other assets		8 642	89		53 822	44 362
27	Physical traded commodities, including gold		49				41
28	Assets posted as initial margin for derivative contracts and						
	contributions to default						
29	NSFR derivative assets					9 489	
30	NSFR derivative liabilities before deduction of variation margin						
	posted					9 561	956
31	All other assets not included in the above categories		8 593	89		34 772	43 365
32	Off-balance-sheet items					292 486	10 240
_	Total RSF						556 886
34	NSFR (%)						116,4

## LIQ2: NEDBANK LIMITED NET STABLE FUNDING RATIO

		Unwei	ghted value by	residual maturity	1		
June 2018		No		6 months		Weighted	
Rm		maturity	< 6 months	to < 1 year	≥ 1 year	value	
ASF item							
L Capital		80 346				80 346	
=	ory capital	76 533				76 533	
	pital instruments	3 813				3 813	
Retail dep	osits and deposits from small-business clients		195 262	12 840	23 036	210 327	
Stable de	·						
	ole deposits		195 262	12 840	23 036	210 327	
Wholesale	3		392 421	63 016	119 063	301 606	
Operation	onal deposits		117 876			58 938	
Other wl	holesale funding		274 545	63 016	119 063	242 668	
0 Liabilitie	s with matching interdependent assets						
1 Other liab	ilities	11 122	5 306		10 252	7 067	
2 NSFR de	rivative liabilities				9 162		
.3 All other	liabilities and equity not included in the above						
categorie	es	11 122	5 306		1 090	7 067	
4 Total ASF						599 346	
RSF item						11 822	
5 Total NSFF	RHQLA						
6 Deposits h	eld at other financial institutions for operational						
purposes			143 027	66 013	473 341	476 672	
7 Performin	g loans and securities		11 834			1 183	
8 Performi	ing loans to financial institutions secured by level 1						
HQLA			24 086	5 847	41 168	47 704	
.9 Performi	ing loans to financial institutions secured by non-level 1						
HQLA an	d unsecured performing loans to financial institutions		100 242	55 083	302 895	332 793	
	ing loans to non-financial corporate clients, loans to						
	d small-business clients and loans to sovereigns, central						
	nd PSEs, of which				11 651	7 573	
	risk weight of less than or equal to 35% under the						
	I Standardised Approach for credit risk		3 105	2 295	104 344	70 523	
2 Performi	ing residential mortgages, of which		3 105	2 295	104 344	70 523	
	risk weight of less than or equal to 35% under the						
Basel II	I Standardised Approach for credit risk		3 760	2 788	13 309	14 587	
	s that are not in default and do not qualify as HQLA,						
_	g exchange-traded equities						
	ith matching interdependent liabilities						
6 Other asse		8 642	89		50 900	42 125	
	traded commodities, including gold	49				41	
	osted as initial margin for derivative contracts and						
	tions to default						
	rivative assets				9 233	71	
	rivative liabilities before deduction of variation margin						
posted					9 163	916	
	assets not included in the above categories	8 593	89		32 504	41 097	
	re-sheet items				273 991	9 325	
3 Total RSF						539 944	
4 NSFR (%)						111,0	

The tables below depict the contractual and BaU liquidity mismatches in respect of Nedbank, while also highlighting the split of total deposits into 'stable' and 'more volatile'. The liquidity profile attributable to foreign operations is relatively small, with approximately 91% of Nedbank Group's balance sheet emanating from Nedbank.

### **NEDBANK LIMITED CONTRACTUAL LIQUIDITY GAP**

Rm	Next day	2 to 7 days	8 days to 1 month	1 to 2 months	2 to 3 months	3 to 6 months	6 to 12 months	> 12 months	Total
June 2018									
Contractual maturity of assets	76 887	11 197	54 067	31 332	19 909	57 521	85 410	595 898	932 221
Loans and advances	41 886	3 264	45 587	16 444	10 655	31 001	55 039	442 312	646 188
Trading, hedging and other									
investment instruments	9 980	7 933	8 480	14 888	9 254	26 520	30 371	114 179	221 605
Other assets	25 021							39 407	64 428
Contractual maturity of liabilities	334 261	37 515	41 663	62 221	40 412	70 477	99 255	246 417	932 221
Stable deposits	315 650	26 810	32 979	32 273	23 944	43 010	85 360	86 365	646 391
Volatile deposits	14 048	1 125	3 754	1 239	1 265	5 841	6 881	7 584	41 737
Trading and hedging instruments	4 090	9 580	4 340	28 709	15 203	21 626	7 014	64 864	155 426
Other liabilities	473		590					87 604	88 667
Net liquidity gap – June 2018	(257 374)	(26 318)	12 404	(30 889)	(20 503)	(12 956)	(13 845)	349 481	-
Off-balance-sheet – June 2018	(161 416)								(161 416)
Net liquidity gap – June 2017	(266 257)	17 257	13 407	(40 845)	(17 860)	(4 402)	(267)	298 967	-
Off-balance-sheet – June 2017	(115 126)	·	(203)		·			·	(115 329)
Net liquidity gap – December 2017	(236 321)	(20 350)	21 848	(42 692)	(19 407)	(14 081)	10 317	300 686	-
Off-balance-sheet – December 2017	(127 538)								(127 538)

The BaU liquidity gap of Nedbank is presented below. The table shows the expected liquidity mismatch under normal market conditions after taking into account the behavioural attributes of stable deposits, savings and investment products and rollover assumptions associated with term deals, but excluding BaU management actions. Based on client behavioural attributes, it is estimated that 94% (December 2017: 95%) of the amounts owed to depositors are stable.

### **NEDBANK LIMITED BAU LIQUIDITY GAP**

		2 to 7	8 days to	1 to 2	2 to 3	3 to 6	6 to 12	> 12	
Rm	Next day	days	1 month	months	months	months	months	months	Total
June 2018									
BaU maturity of assets	986	17 203	44 295	31 520	24 342	58 438	112 380	643 057	932 221
Loans and advances	590	15 586	38 713	18 062	18 064	52 777	102 890	399 506	646 188
Trading, hedging and other	396	1 617	5 582	13 458	6 278	5 661	9 490	179 123	221 605
investment instruments									
Other assets								64 428	64 428
BaU maturity of liabilities	1 444	6 546	28 836	20 345	14 961	36 636	74 589	748 864	932 221
Stable deposits	218	1 076	8 801	6 986	10 965	26 353	53 648	538 344	646 391
Volatile deposits	600	4 215	16 109	1 202	1 265	5 841	6 881	5 624	41 737
Trading and hedging instruments	626	1 255	3 926	12 157	2 731	4 442	14 060	116 229	155 426
Other liabilities								88 667	88 667
Net liquidity gap – June 2018	(458)	10 657	15 459	11 175	9 381	21 802	37 791	(105 807)	_
Off-balance-sheet – June 2018	(66)	(398)	(1 591)	(1 989)					(4 044)
Net liquidity gap – June 2017	18 409	(3 066)	9 806	19 458	4 001	14 742	16 456	(79 806)	-
Off-balance-sheet – June 2017	(68)	(407)	(1 629)	(2 036)					(4 140)
Net liquidity gap – December 2017	18 940	340	14 910	15 207	10 427	12 435	18 775	(91 034)	
Off-balance-sheet – December 2017	(61)	(365)	(1 460)	(1 824)					(3 710)

As illustrated below, Nedbank's H1 cumulative inflows exceed outflows for the cumulative one -to six-month time buckets, highlighting the strength of Nedbank's retail and commercial deposits franchise and the effective management of the funding profile and asset-liability composition from a behavioural perspective.

### Nedbank Limited behavioural liquidity mismatch<sup>1</sup>



<sup>&</sup>lt;sup>1</sup> Expressed on total assets and based on maturity assumptions before rollovers and risk management.

## Securitisation risk

Nedbank Group uses securitisation as a funding diversification tool, as well as to add flexibility in mitigating structural liquidity risk. The group currently has four traditional securitisation transactions and one asset-backed commercial paper (ABCP) programme.

Greenhouse Funding III (RF) Limited (Greenhouse III) is a securitisation of a portfolio of home loans originated by Nedbank Retail. The senior notes issued were placed with SA capital market investors as part of Nedbank Group's funding strategy, while the junior notes were retained by the bank. The notes issued by Greenhouse III have been assigned credit ratings by Moody's Investor Ratings Services (Moody's) and are listed on the JSE Limited.

Precinct Funding 1 (RF) Limited (Precinct 1) and Precinct Funding 2 (RF) Limited (Precinct 2) are securitisations of commercial-property loans originated by Nedbank CIB. Precinct 1 fully redeemed its listed notes on their scheduled maturity dates in January 2018. Precinct 2 issued its first notes in March 2017. The notes issued by Precinct 2 are rated by Moody's and listed on the JSE, with the senior notes being placed with SA capital market investors and the junior notes retained by the bank.

Past transactions include Synthesis Funding Limited (Synthesis) and Greenhouse Funding (RF) Limited (Greenhouse I). Synthesis was a hybrid multiseller ABCP programme that invested in longer-term-rated asset-backed securities and bonds and offered capital market funding opportunities to SA corporates. Synthesis sold its remaining assets and fully redeemed its remaining notes in December 2017. Greenhouse I was a securitisation of a portfolio of home loans and fully redeemed its listed notes in October 2017.

### ASSETS SECURITISED AND RETAINED SECURITISATION EXPOSURE

	Year initiated	Rating agency	Transaction type	Asset type	Assets securitised <sup>1</sup>				Assets outstanding	
Rm					Jun 2018	Jun 2017	Dec 2017	Jun 2018	Jun 2017	Dec 2017
Greenhouse I	2007	Moody's	Traditional securitisation	Home loans	2 049	2 049	2 049		1 051	
Precinct 1	2013	Moody's	Traditional securitisation	Commercial- property loans	2 344	2 344	2 344		706	284
Greenhouse III	2014	Moody's	Traditional securitisation	Home loans	2 052	2 052	2 052	1 358	1 610	1 462
Precinct 2	2017	Moody's	Traditional securitisation	Commercial- property loans	1 111	1 111	1 111	1 015	1 027	1 036
	Year	Rating	Transaction	Asset	Am	ount retaine	ed/	F	Risk-weighted	ı
	initiated	agency	type	type		purchased		assets <sup>2</sup>		
Rm					Jun 2018	Jun 2017	Dec 2017	Jun 2018	Jun 2017	Dec 2017
Greenhouse I	2007	Moody's	Traditional securitisation	Home loans		373			273	
Precinct 1	2013	Moody's	Traditional securitisation	Commercial- property loans		454	375		198	55
Greenhouse III	2014	Moody's	Traditional securitisation	Home loans	294	291	296	248	356	259
Precinct 2	2017	Moody's	Traditional securitisation	Commercial- property loans	170	384	173	278	322	301

 $<sup>^{</sup>m 1}$  This includes all assets identified for securitisation at the transaction close.

## LIQUIDITY FACILITIES PROVIDED TO NEDBANK'S ASSET-BACKED COMMERCIAL PAPER PROGRAMME

	Year initiated	Rating agency	Transaction type	Programme size	Face value of notes outstanding				Liquidity facilities			Risk-weighted assets		
Rm					Jun 2018	June 2017	Dec 2017		June 2017	Dec 2017	Jun 2018	June 2017	Dec 2017	
Synthesis	2004	Unrated	ABCP programme	15 000		203			203			15		

<sup>&</sup>lt;sup>2</sup> The regulatory capital held against these securitisation exposures is capped at the IRB Approach capital that the bank would have held against the underlying assets had they not been securitised.

The various roles fulfilled by Nedbank Group in securitisation transactions are indicated in the table below.

Transaction	Originator	Sponsor	Investor	Servicer	Liquidity facility provider	Credit enhancement provider	Swap counterparty	
Greenhouse III	V		~	~		~	~	
Precinct 2	<b>~</b>		•	•		•	•	

There have been no downgrades of any of the commercial paper or notes issued by Nedbank Group's securitisation transactions and the performance of the underlying portfolios of assets remain sound.

All securitisation transactions entered into thus far have involved the sale of the underlying assets to the special-purpose vehicles. Nedbank Group has not originated or participated in synthetic securitisations.

Nedbank Group complies with IFRS in recognising and accounting for securitisation transactions.

- In particular, the assets transferred to the Greenhouse and Precinct securitisation vehicles continue to be recognised on the balance sheet of the bank and the securitisation vehicles are consolidated under Nedbank Group for financial reporting purposes.
- Securitisations are treated as sale transactions (rather than financing transactions). The assets are sold to the special-purpose vehicles at carrying value and no gains or losses are recognised.

Proposed securitisation initiatives undertaken by Nedbank Group follow a rigorous internal approval process and are reviewed for approval by Group Alco, GRCMC and the board. Retained securitisation exposures are reviewed and monitored by the relevant credit committees in the group, and changes to retained securitisation exposures (ratings, redemptions and losses) are reflected in the monthly return concerning securitisation schemes (BA500) submitted to SARB: PA.

Nedbank Group does not employ CRM techniques to hedge credit risk on retained securitisation exposures or resecuritisation exposures.

The table below details Nedbank Group's securitisation exposures in the banking book. Nedbank Group has no securitisation exposure in the trading book.

SEC1: SECURITISATION EXPOSURES IN THE BANKING BOOK

		Traditional s	ecuritisation	
Rm	Group acts as originator	Group acts as sponsor	Group acts as investor	Total
June 2018				
1 Retail, of which	294			294
2 residential mortgages	294			294
4 other retail exposures				
5 resecuritisation				
6 Wholesale, of which	170			170
7 loans to corporates				
8 commercial mortgages	170			170
9 leases and receivables				
11 resecuritisation				
Total	464			464
June 2017				
1 Retail, of which	664		16	680
2 residential mortgages	664			664
4 other retail exposures			16	16
5 resecuritisation				
6 Wholesale, of which	838	203	45	1 086
7 loans to corporates		203		203
8 commercial mortgages	838			838
9 leases and receivables			45	45
11 resecuritisation				
Total	1 502	203	61	1 766
December 2017				
1 Retail, of which	296		6	302
2 residential mortgages	296			296
4 other retail exposures			6	6
5 resecuritisation				
6 Wholesale, of which	548			548
7 loans to corporates				
8 commercial mortgages	548			548
9 leases and receivables				
11 resecuritisation				
Total	844		6	850

The decline in total exposure from R850m to R464m was driven by the maturity of the Precinct 1 transaction.

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

			Exposur by risk we				values by y approach		regulatory oroach		l charge r cap
Rm		<u>&lt;</u> 20%	> 20% to 50%	> 50% to 100%	> 100% to < 1 250%	IRB RBA	IRB SFA	IRB RBA	IRB SFA	IRB RBA	IRB SFA
Jun	e 2018										
1	Total exposures			294	170	81	383	206	320	23	36
3	Securitisation, of which			294	170	81	383	206	320	23	36
4	retail underlying			294			294		248		28
5	wholesale				170	81	89	206	72	23	8
6	Resecuritisation, of which										
7	senior										
8	non-senior										
Jun	e 2017										
1	Total exposures	203	454	757	291	530	1 175	439	725	47	78
3	Securitisation, of which	203	454	757	291	530	1 175	439	725	47	78
4	retail underlying			373	291	71	593	84	545	9	59
5	wholesale	203	454	387		459	582	355	180	38	19
6	Resecuritisation, of which										
7	senior										
8	non-senior										
Dec	ember 2017										
1	Total exposures	375		296	173	170	674	257	358	28	38
3	Securitisation, of which	375		296	173	170	674	257	358	28	38
4	retail underlying			296			296		259		28
5	wholesale	375			173	170	378	257	99	28	10
6	Resecuritisation, of which										
7	senior										
8	non-senior										

There were no synthetic securitisations (rows 9 to 15) and no exposures in the > 20% to 50% risk weight band at 30 June 2018.

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

		osure values			values by	RWA		Capital charge		
		risl	k weight band	ds	regulatory	approach	regulatory	approach	after	сар
Rm		<u>&lt;</u> 20%	> 50% to 100%	> 100% to < 1 250%	IRB RBA (including IAA)	IRB SFA	IRB RBA (including IAA)	IRB SFA	IRB RBA (including IAA)	IRB SFA
Jun	e 2018									
1 3 4	Total exposures Securitisation, of which retail underlying									
5	wholesale									
6 7 8	Resecuritisation, of which senior non-senior									
Jun	e 2017									
1	Total exposures		61		61		39		4	
3	Securitisation, of which		61		61		39		4	
4	retail underlying		16		16		10		1	
5	wholesale		45		45		29		3	
6 7	Resecuritisation, of which senior									
8	non-senior									
Dec	cember 2017									
1	Total exposures		6		6		6		1	
3	Securitisation, of which		6		6		6		1	
4	retail underlying		6		6		6		1	
5	wholesale									
6	Resecuritisation, of which									
7	senior									
8	non-senior									

The last remaining investment matured in May 2018.

## **Market risks**

Market risk comprises four main areas:

- IRRBB, which arises from repricing and/or maturity mismatches between on- and off-balance-sheet components across all the business
  clusters.
- Market risk (or position risk) in the trading book, which arises predominantly in Nedbank CIB.
- Foreign exchange risk in the banking book, which arises from the conversion of the group's/businesses' offshore banking book assets or liabilities or commitments or earnings from foreign currency to local or functional currency.
- Equity risk in the banking book, which arises in the private-equity and investment property portfolios of Nedbank CIB and in other strategic investments of the group; and property market risk, which arises from business premises, property required for future expansion and repossessed properties.

Other than IRRBB, Nedbank does not have a significant risk appetite for, or exposure to, market risk.

## Market risk strategy, governance and policy

The Group Market Risk Management Framework is in place to achieve effective independent monitoring and management of market risk. The framework is approved by the board and with support by:

- The board's GRCMC.
- The Group Alco, which is responsible for ensuring that market risks are effectively managed and reported on throughout Nedbank Group, and that all policy, risk limits and relevant market risk issues are reported to the GRCMC.
- GMRM, an independent function within the Group Risk Cluster monitors market risks across Nedbank Group this is a specialist risk area that provides independent oversight of market risk, validation of risk measurement, policy coordination and reporting.
- The Trading Risk Committee (TRC), which is responsible for the oversight and monitoring of the trading market risk activities of Nedbank CIB. The TRC approves appropriate trading risk limits for the individual business units within the trading area. Committee meetings are held every second month and are independently chaired by the Executive Head of GMRM. Members include the CRO, risk managers from the cluster, the cluster's managing executive and executive head of risk, as well as representatives from GMRM.
- Specialist investment risk committee meetings within the business areas, which are convened monthly and as required to approve acquisitions and disposals, and quarterly to review investment valuations and monitor investment risk activities. Membership includes the CRO, CFO, managing executive and executive head of risk of the relevant business clusters as well as a representative from GMRM.

The board ultimately approves the market risk appetite and related limits for both the banking [Asset and liability management (ALM) and investments] and the trading books. GMRM reports on the market risk portfolio and is instrumental in ensuring that market risk limits are compatible with a level of risk acceptable to the board. No market risk is permitted outside these board-approved limits. Hedging is an integral part of managing trading book activities on a daily basis. Banking book hedges are in line with Group Alco strategies and stress testing is performed monthly to monitor residual risk.

Nedbank CIB is the only cluster in the group that may incur trading market risk, but is restricted to the formally approved securities and derivative products. Products and product strategies that are new to the business undergo a new-product review and approval process to ensure that their market risk characteristics are understood and can be properly incorporated into the risk management process. The process is designed to ensure that all risks, including market, credit (counterparty), operational, legal, tax, compliance and regulatory (eg exchange control and accounting) risks are addressed and that adequate operational procedures and risk control systems are in place.

### Interest rate risk in the banking book

Nedbank Group is exposed to IRRBB, primarily due to the following:

- The bank writes a large quantum of prime-linked advances.
- To lengthen the funding profile of the bank term funding is raised across the curve at fixed-term deposit rates that are repriced only on maturity.
- Three-month repricing swaps and forward-rate agreements are typically used in the risk management of term deposits and fixed-rate advances.
- Short-term demand funding products are repriced to different short-end base rates.
- Certain non-repricing transactional deposit accounts are non-rate-sensitive.
- The bank has a mismatch in net non-rate-sensitive balances, including shareholders' funds that are not repriced for interest rate changes.

### IRRBB comprises:

- Repricing risk (mismatch risk) timing difference in the maturity (for fixed rate) and repricing (for floating rate) of bank assets, liabilities and off-balance-sheet positions.
- Endowment risk the net mismatch between non-rate-sensitive assets, liabilities, capital and non-repricing transactional deposit accounts effectively invested in rate-sensitive assets.
- Reset or basis risk imperfect correlation in the adjustment of the rates earned and paid on different instruments with otherwise similar repricing characteristics.
- Yield curve risk changes in the shape and slope of the yield curve.
- Embedded optionality the risk related to interest-related options embedded in bank products.

## IRRBB strategy, governance, policy and processes

IRRBB is managed within Nedbank Group's ERMF under market risk. The board of directors retains ultimate responsibility for the effective management of IRRBB. Through the GRCMC (a board subcommittee) the board has delegated its responsibility for the management of IRRBB to the Group Alco. The Group Alco, a subcommittee of the board's GRCMC, proactively manages IRRBB. BSM provides strategic insight and motivation in managing IRRBB to Group Alco through appropriate risk reporting and analytics and by providing strategic input based on the committee's interest rate views, impairment sensitivity and defined risk appetite.

The board assumes ultimate responsibility for IRRBB and has defined the group's overall risk appetite for IRRBB. Appropriate limits have been set to measure this risk for both earnings and EVE, within which this risk must be managed. Compliance with these limits is measured and reported to the Group Alco and the board.

IRRBB is actively managed through a combination of on- and off-balance-sheet strategies, including hedging activities. Hedging is typically transacted on a portfolio basis for deposits and retail advances, although larger, longer-dated deposits along with wholesale fixed-rate advances are typically individually hedged. The principal interest-rate-related contracts used include interest rate swaps and forward-rate agreements. Basis products, caps, floors and swaptions may be used to a lesser extent. The principal on-balance-sheet components used in changing the repricing profile of the balance sheet include the liquid-asset portfolio, term deposits and fixed-rate advances. IRRBB strategies are evaluated regularly to align with interest rate views, impairment sensitivity and defined risk appetite.

Group Alco continues to analyse and manage IRRBB, incorporating the likely change in impairments for similar interest rate changes. This relationship between interest rate sensitivity and impairment sensitivity, which is seen as a natural net income hedge, is a key focus of the Group Alco in managing IRRBB. This analysis includes an assessment of the lag in impairment changes and the increasing change in impairment charges for consecutive interest rate changes. Due to the complexity in determining the extent of this natural net income hedge, particularly during interest rate peaks and troughs, the modelling of this relationship and associated risk management strategies is challenging and continues to be refined and improved.

On-balance-sheet strategies are executed through any one of the business units, depending on the chosen strategy. Changes to the structural interest rate risk profile of the banking book are achieved primarily through the use of the derivative instruments mentioned above and/or new on-balance-sheet products. Hedges are transacted through Group Treasury through the ALM Desk, whereby unwanted IRRBB is passed through a marketmaking desk into market risk limits or into the external market.

Hedged positions and hedging instruments are regularly measured and stress-tested for effectiveness and reported to Group Alco on a monthly basis. These hedged positions and hedging instruments are fair-valued in line with the appropriate accounting standards and designation. The Group Alco typically has a strategic appetite out to one year and, largely as a matter of policy, eliminates reprice risk longer than one year, unless it elects to lengthen the investment profile of its equity and/or the non-repricing transactional deposit accounts to improve the alignment of interest rate sensitivity with impairment sensitivity or improve the balance sheet position for expected interest rate changes.

Such strategic decisions must, however, maintain NII sensitivity and EVE sensitivity within board-approved limits. Strategies regarding the reprice risk are measured and monitored separately, having been motivated by the BSM Cluster and approved by Group Alco.

IRRBB cannot be taken by business units and is accordingly extracted from these units through an established matched maturity funds transfer pricing (MMFTP) solution. This solution removes repricing risk from the business units, while leaving credit and funding spread in the businesses on which they are measured. However, certain basis risk and the endowment on free funds and non-repricing transactional deposits reside within these businesses in order for basis risk to be managed through pricing and for the endowment on these balances to naturally hedge impairment sensitivity for similar interest rate changes.

### **IRRBB** measurement

The group employs various analytical techniques to measure interest rate sensitivity monthly within the banking book on both an earnings and economic-value basis. This includes a repricing profile analysis, simulated modelling of the bank's earnings-at-risk (EaR) and EVE for a standard interest rate shock, and stress testing of EaR and EVE for multiple stressed-interest-rate scenarios. These analyses include the application of both parallel and non-parallel interest rate shocks and rate ramps.

Assets, liabilities and derivative instruments are modelled and reported based on their contractual repricing or maturity characteristics. Where advances are exposed to prepayments and deposits to ambiguous repricing, Group Alco approves the use of prepayment models for the hedging of fixed-rate advances and behavioural repricing assumptions for the modelling and reporting of ambiguous repricing deposits.

### **SENSITIVITY ANALYSIS**

At June 2018 the NII sensitivity of the group's banking book for a 1% parallel reduction in interest rates measured over 12 months is 1,70% of total group ordinary shareholders' equity, which is well below the board's approved risk limit of < 2,25%.

This exposes the group to a decrease in NII of approximately R1 399m before tax, should interest rates decrease by 1% on a parallel basis across the yield curve, measured over a 12-month period.

■ The group's NII sensitivity exhibits very little convexity and will therefore also result in an increase in pretax NII of approximately similar amounts should interest rates increase by 1%.

The group's NII sensitivity is actively managed through on- and off-balance-sheet interest rate risk management strategies for the group's expected interest rate view and impairment sensitivity.

Nedbank Limited's EVE, measured for a 1% parallel decrease in interest rates, remains at a low level of -R145m at June 2018 (December 2017: R60m).

This is as a result of the group's risk management strategies, whereby assets and liabilities are typically positioned to reprice in the < 3-month repricing bucket, and net working capital largely offsets the non-rate-sensitive transactional balances from an interest rate sensitivity perspective, thereby positioning OSE to be repriced as interest rates change, resulting in the valued equity remaining intact.</p>

#### **EXPOSURE TO INTEREST RATE RISK**

	Nedbank Limited			Nedbank Limited Consolidated			Nedbank Group		
	Jun	<b>Jun</b> Jun Dec			Jun	Dec	Jun	Jun	Dec
Rm	2018	2017	2017	2018	2017	2017	2018	2017	2017
NII sensitivity <sup>1</sup>									
1% instantaneous decline in interest rates	(1 145)	(1 076)	(1 123)	(1 221)	(1 194)	(1 210)	(1 399)	(1 357)	(1 363)
EVE sensitivity <sup>2</sup>									
1% instantaneous decline in interest rates	(145)	(26)	60	n/a	n/a	n/a	n/a	n/a	n/a

<sup>&</sup>lt;sup>1</sup> Nedbank London and Nedbank Private Wealth: 0,5% instantaneous decline in interest rates.

## Liquid-asset portfolios sensitivity

Nedbank's management of IRRBB comprehensively covers the interest rate risk associated with its prudential and buffer liquid-asset portfolios, including reprice risk and basis risk.

Risk strategies comprise of on- and off-balance-sheet components, whereby the associated interest rate risk of the group's liquid-asset portfolios is used to reduce the reprice sensitivity associated with its fixed-rate term funding and long-term debt in order to manage opposing risk on such funding and debt, or it is hedged using derivative positions to remove the associated repricing risk. Liquid-asset portfolios risk managed with derivative positions in the banking book are designated into a Marco Fair Value Hedge Accounting solution.

Alternatively, where liquid-asset portfolios are not risk managed in the banking book, such risk is transferred through market risk limits into the trading book.

Sound risk management of the liquid-asset portfolios is a clear example of Nedbank's embedded interest rate risk management approach to managing risks within a clearly defined risk appetite.

	Notional	PV01 <sup>1</sup>	PV01 <sup>1</sup> with risk management
Liquid asset portfolio risk management strategies	Rm	Rm	· ·
June 2018			
Off-balance-sheet risk management	56 214	(12,08)	(0,52)
Risk-managed with derivatives	56 214	(12,08)	(0,52)
On-balance-sheet risk management	52 000	(8,67)	0,78
Risk-managed with long-term debt instruments with similar designation	16 962	(6,45)	0,67
Risk-managed with fixed-rate term funding	35 038	(2,22)	0,11
Total	108 214	(20,75)	0,26
Risk management effectiveness			101,3%

<sup>&</sup>lt;sup>1</sup>The change in the price of an instrument if the yield curve changes by 1 bps.

The interest rate risk sensitivity is significantly reduced through on- and off-balance-sheet risk management strategies.

<sup>&</sup>lt;sup>2</sup> Excludes Nedbank London.

## **Trading market risk**

Trading market risk is the risk of loss as a result of unfavourable changes in the market value of the trading book resulting from changes in market risk factors such as foreign exchange rates, interest rates, equity prices, commodity prices, credit and implied volatilities. The trading book is defined as positions in financial instruments and commodities, including derivative products and other off-balance-sheet instruments that are held with trading intent, or used to hedge other elements of the trading book.

Categories of trading market risk include exposure to interest rates, equity prices, commodity prices, foreign exchange rates and credit spreads. A description of each market risk factor category is set out below:

- Interest rate risk primarily results from exposure to changes in the level, slope and curvature of the yield curve and the volatility of interest rates.
- Equity price risk results from exposure to changes in the price and volatility of individual equities and equity indices.
- Commodity price risk results from exposure to changes in spot prices, forward prices and volatilities of commodity products such as energy, agricultural products, and precious and base metals.
- Foreign exchange rate risk results from exposure to changes in spot prices, forward prices and volatility of currencies.
- Credit spread risk results from exposure to changes in the interest rate that reflects the spread investors receive for bearing credit risk.

## Trading market risk governance

The trading market risk governance structure is aligned with the Group Market Risk Management Framework. The daily responsibility for market risk management resides with the trading business unit heads in Nedbank CIB. An independent market risk team is accountable for independent monitoring of the activities of the dealing room within the mandates agreed by the TRC. Independent oversight is provided to the board by GMRM.

Primary market risk limits, including VaR and stress trigger limits, are approved at board level and are reviewed periodically, but at least annually. These limits are then allocated to the trading units through secondary limits by the TRC. Market risk reports are available at a variety of levels and in various degrees of detail, ranging from individual trader-level through to a group-level view of market risk. Market risk exposures are measured and reported to management and bank executives on a daily basis. Documented policies and procedures are in place to ensure that exceptions are resolved timeously.

## Managing trading market risk

Trading market risk is governed by a board-approved policy that covers management, identification, measurement and monitoring.

In addition to applying business judgement, management uses a number of quantitative measures to manage the exposure to trading market risk. These measures include:

- Risk limits based on a portfolio measure of market risk exposures referred to as VaR, including extreme tail loss (ETL).
- Scenario analysis, stress tests and other analytical tools that measure the potential effects on trading revenue in the event of various unexpected market events.

The material risks identified by these measures are summarised in daily reports that are circulated to, and discussed with, senior management. VaR is the potential loss in pretax profit due to adverse market movements over a defined holding period with a specified confidence level. The VaR methodology is a statistically defined, probability-based approach that takes into account market volatilities as well as risk diversification by recognising offsetting positions and correlations between products and markets. It facilitates the consistent measurement of risk across all markets and products, and risk measures can be aggregated to arrive at a single risk number. The 99% one-day VaR number used by Nedbank Group indicates that, at a 99% confidence level, the daily loss will not exceed the reported VaR and therefore that the daily losses exceeding the VaR figure are likely to occur, on average, once in every 100 business days.

Nedbank Group uses one year of historical data to estimate VaR. Some of the considerations that are taken into account when reviewing the VaR numbers are:

- The assumed one-day holding period will not fully capture the market risk of positions that cannot be liquidated or offset with hedges within one day.
- The historical VaR assumes that the past is a good representation of the future, which may not always be the case.
- The 99% confidence level does not indicate the potential loss beyond this interval.
- If a product or listing is new in the market, limited historical data would be available. In such cases, a proxy is chosen to act as an estimate for the historical rates of the relevant risk factor. Depending on the amount of (limited) historical rates available, regression analysis is used on the chosen proxy to refine the link between the proxy and the actual rates.

Additional risk measures are used to monitor the individual trading desks, including performance triggers, approved trading products, concentration of exposures, maximum tenor limits and market liquidity constraints. Nedbank CIB also makes use of the ETL measure to overcome some of the VaR shortcomings. ETL seeks to quantify losses encountered in the tail beyond the VaR level.

All market risk models are subject to periodic independent validation in terms of the Group Market Risk Management Framework. A formal review of all existing valuation models is conducted at least annually. Should the review process indicate that models need to be updated, a formal independent review will take place. All new risk models developed are independently validated prior to implementation.

Nedbank Group's current trading activities are focused on liquid markets, which are in line with the current regulatory liquidity horizon assumption of a 10-day holding period, as per Basel III.

## Trading market risk stress testing

While VaR captures Nedbank Group's exposure under normal market conditions, sensitivity and stress and scenario analyses are used to add insight into the possible outcomes under abnormal market conditions.

- Nedbank CIB uses a number of stress scenarios to measure the impact of extreme moves in markets on portfolio values, based on historical experience as well as hypothetical scenarios. The stress-testing methodology assumes that all market factors move adversely at the same time and that no actions are taken during the stress events to mitigate risk, reflecting the decreased liquidity that frequently accompanies market shocks.
- Stress-testing results are reported daily to senior management and are also tabled at the TRC and Group Alco. Stress scenarios are periodically and at least annually reviewed for relevance in ever-changing market environments.

## Trading market risk backtesting

The performance of the VaR model is regularly assessed through a process called backtesting. This is done by comparing daily trading revenue against VaR exposure based on 99% confidence level and a one-day holding period. Nedbank performs backtesting using actual (reported) profit and loss as well as hypothetical profit and loss (calculated income attributed to market moves and stripped of fee/flow income). This is conducted at various levels as well as against risk factors on a daily basis.

## Trading market risk profile

Most of Nedbank Group's trading activity is managed in Nedbank CIB and is primarily focused on client activities and flow trading. This includes marketmaking and the facilitation of client business in the foreign exchange, interest rate, equity, credit and commodity markets.

The RWA flow statement of market risk exposures under the IMA for the period is presented below; there were no incremental and comprehensive risk capital charges. RWA under TSA is less than 5% of the group RWA, and therefore the MR1 table has not been included in this report as it would not be meaningful nor add value for the user.

### MR2: RISK-WEIGHTED ASSETS FLOW STATEMENT OF MARKET RISK EXPOSURES UNDER IMA

Rm		VaR	Stressed VaR	Total RWA
1	RWA at 30 March 2018	6 852	10 555	17 407
2	Movement in risk levels	(859)	1 895	1 036
3	Model updates/changes			
4	Methodology and policy			
5	Acquisitions and disposals			
6	Foreign exchange movements	8	994	1 002
7	Other			
8	RWA at 30 June 2018	6 001	13 444	19 445

### MR3: NEDBANK LIMITED IMA VALUES FOR TRADING PORTFOLIOS<sup>1</sup>

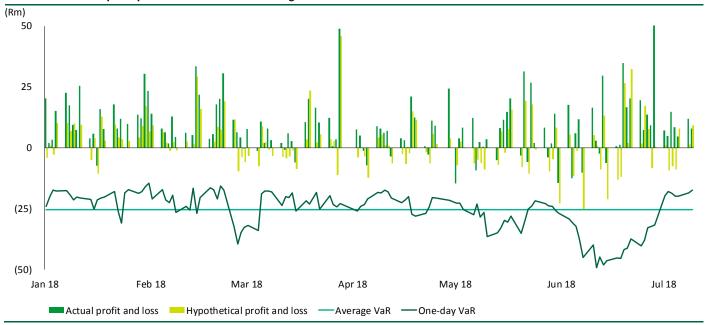
Rm		Foreign exchange	Interest rate	Credit	Commodity	Diversification <sup>2</sup>	Total VaR
June	2018					_	
VaR	(10-day 99%) <sup>3</sup>						
1	Maximum value <sup>4</sup>	61,4	198,2	58,6	2,1		245,1
2	Average value	45,1	106,8	43,3	< 1	(40,2)	155,3
3	Minimum value <sup>4</sup>	20,1	58,1	30,1	< 1		98,2
4	Period-end	53,9	123,7	57,3	< 1	(80,8)	154,3
Stre	ssed VaR (10-day 99%) <sup>3</sup>						
5	Maximum value <sup>4</sup>	174,3	251,9	219,7	3,4		437,9
6	Average value	110,2	174,1	116,0	< 1	(111,4)	289,5
7	Minimum value <sup>4</sup>	47,7	131,1	61,4	< 1		205,1
8	Period-end	157,9	191,0	214,6	< 1	(133,8)	430,1
June	2017						
VaR	(10-day 99%) <sup>3</sup>						
1	Maximum value <sup>4</sup>	124,7	137,2	38,6	1,8		179,4
2	Average value	58,4	66,8	28,7	< 1	(37,5)	116,6
3	Minimum value <sup>4</sup>	21,2	32,8	23,9	< 1		63,0
4	Period-end	36,7	88,3	26,8	< 1	(19,7)	132,1
Stre	ssed VaR (10-day 99%) <sup>3</sup>						
5	Maximum value <sup>4</sup>	159,8	183,4	128,2	2,8		287,9
6	Average value	75,3	116,8	81,5	< 1	(86,8)	187,1
7	Minimum value <sup>4</sup>	23,3	87,4	44,4	< 1		134,8
8	Period-end	44,4	138,0	107,4	< 1	(87,6)	202,5

Rm		Foreign exchange	Interest rate	Credit	Commodity	Diversification <sup>2</sup>	Total VaR
Dec	ember 2017						
VaR	(10-day 99%) <sup>3</sup>						
1	Maximum value <sup>4</sup>	124,7	189,3	50,1	2,1		212,1
2	Average value	46,2	80,6	31,2	< 1	(39,5)	118,7
3	Minimum value <sup>4</sup>	12,8	32,8	23,4	< 1		51,4
4	Period-end	48,1	98,9	40,9	2,1	(43,2)	146,8
Stre	ssed VaR (10-day 99%) <sup>3</sup>						
5	Maximum value <sup>4</sup>	192,5	234,2	128,2	3,4		287,9
6	Average value	64,2	138,8	73,7	< 1	(91,7)	185,3
7	Minimum value <sup>4</sup>	17,0	87,4	34,0	< 1		130,2
8	Period-end	121,6	171,0	116,7	3,4	(161,9)	250,8

 $<sup>^{1}</sup>$  Equities are out of scope for Nedbank Limited IMA purposes and are covered under Nedbank Group.

## Backtesting - Daily trading revenue and VaR

MR4: Nedbank Group comparison of VaR estimates with gains or losses



The graph above illustrates the daily normal VaR for the six-month period ended June 2018.

VaR remained fairly range-bound during the first half of 2018 and was around 5% higher than in 2017.

Nedbank Group has remained within the approved risk appetite and VaR limits allocated by the board, which remain low, with trading market risk consuming only 0,4% and 4,2% of group economic capital and regulatory capital respectively.

VaR is an important measurement tool and the performance of the model is regularly assessed through backtesting. This is done by reviewing the daily VaR over a one-year period (on average 250 trading days) and comparing the actual and hypothetical daily trading revenue (including NII but excluding commissions and primary revenue) with the VaR estimate, and counting the number of times the trading loss exceeds the VaR estimate.

Nedbank Group had no hypothetical or actual backtesting exceptions in the period under review.

<sup>&</sup>lt;sup>2</sup> Diversification benefit is the difference between the aggregate VaR and the sum of VaRs for the four risk types. This benefit arises because the simulated 99% one-day loss for each of the four primary market risk types occurs on different days.

<sup>&</sup>lt;sup>3</sup> A summary of the 10-day 99% stressed VaR. Stressed VaR is calculated weekly and is included on the daily return concerning selected risk exposure (BA325) and the monthly return concerning market risk (BA320) that are submitted to SARB: PA. It is calculated using a 99% confidence interval for a one-day holding period and then scaled to a 10-day holding period.

<sup>&</sup>lt;sup>4</sup> The minimum and maximum VaR values reported for each of the different risk factors do not necessarily occur on the same day. As a result, a diversification number for the minimum and maximum values have been omitted from the table.

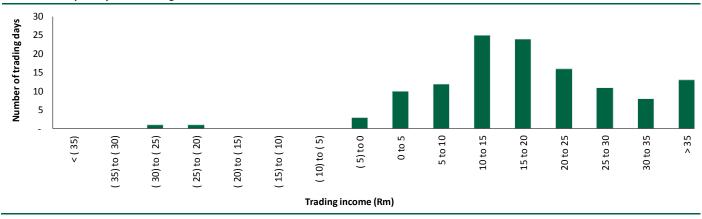
## Analysis of trading revenue

The first six months of 2018 was characterised by a positive contribution from most business lines, which resulted in strong financial performance, notably from the foreign exchange areas, fixed income and equities.

Nedbank Group's trading businesses (including NII, commissions and primary revenue credited to Nedbank Group's trading businesses) produced a daily revenue distribution that is skewed to the profit side, with trading revenue realised on 119 days out of a total of 124 days in the period.

The average daily trading revenue generated for the period, excluding revenue related to investment banking, was R18,7m (December 2017: R16,2m).

### Nedbank Group analysis of trading revenue for the six months ended June 2018



## Stress testing results

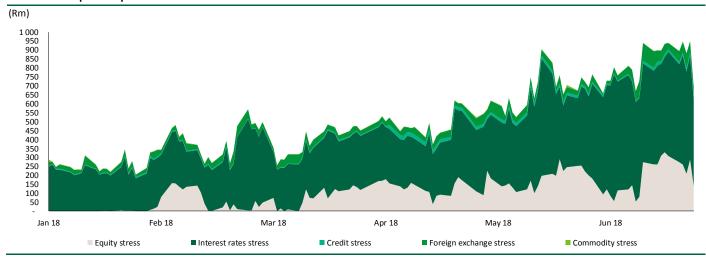
The table below summarises the daily stress testing results for June 2018, June 2017 and December 2017, which represent a set of extreme market movements as applied to the trading activities.

### **NEDBANK GROUP RISK EXPOSURES PER RISK FACTOR**

Rm	Average	High <sup>1</sup>	Low <sup>1</sup>	End of period
June 2018				
Foreign exchange stress	36	99	8	50
Interest rate stress	352	709	183	482
Equity stress	107	329	< 1	140
Credit spread stress	10	22	1	19
Commodity stress	2	12	< 1	1
Overall	507	950	205	692
June 2017				
Foreign exchange stress	42	98	10	33
Interest rate stress	317	542	211	369
Equity stress	83	123	2	3
Credit spread stress	52	71	17	27
Commodity stress	1	8	< 1	1
Overall	495	727	345	433
December 2017				
Foreign exchange stress	45	109	9	30
Interest rate stress	336	542	211	229
Equity stress	89	313	< 1	< 1
Credit spread stress	31	71	< 1	3
Commodity stress	< 1	12	< 1	12
Overall	501	806	270	274

<sup>&</sup>lt;sup>1</sup> The high and low stress values reported for each of the different risk factors do not necessarily occur on the same day. As a result the high- and low-risk-factor stress exposures are not additive.

### Nedbank Group risk exposures for the six months ended June 2018



## Nedbank Group trading book stressed VaR

As part of the Basel II.5 update to the Banks Act (Act No 94 of 1990) regulations, stressed VaR is calculated using market data taken over a period in which the relevant market factors were experiencing stress. Nedbank Group uses historical data for the period 1 July 2008 to 30 June 2009 as that period represents significant volatility in the SA market.

The information in the table below is the comparison of the VaR using three different calculations at 30 June 2018. The three different calculations are historical VaR, ETL and stressed VaR. ETL measures the extreme loss in the tail of the distribution and stressed VaR uses a volatile historical-data period. A 99% confidence level and one-day holding period are used for all the calculations.

### **NEDBANK GROUP COMPARISON OF TRADING VaR**

Rm	Historical VaR 99% (one-day VaR)	Stressed VaR 99% (one-day VaR)	Extreme tail loss
June 2018			
Foreign exchange	3,3	10,4	4,0
Interest rates	32,2	72,7	48,2
Equities	3,0	2,8	5,2
Credit	8,6	9,8	11,5
Commodities	< 0,1	< 0,1	< 0,1
Diversification	(16,7)	(24,0)	(28,2)
Total VaR exposure	30,5	71,8	40,8
June 2017			
Foreign exchange	5,6	8,1	6,2
Interest rates	22,3	51,8	25,0
Equities	1,3	5,7	2,3
Credit	6,9	15,9	10,8
Commodities	< 0,1	< 0,1	< 0,1
Diversification	(15,9)	(21,3)	(22,1)
Total VaR exposure	20,3	60,2	22,3
December 2017			
Foreign exchange	3,8	10,3	5,0
Interest rates	31,3	68,2	48,6
Equities	3,7	6,2	4,5
Credit	12,1	13,7	14,4
Commodities	0,7	1,1	0,7
Diversification	(27,6)	(26,5)	(28,6)
Total VaR exposure	24,0	73,0	44,6

## Foreign currency translation risk in the banking book

FCT risk is the risk of the group's capital losing value as a result of movements in exchange rates that adversely impact the rand value of foreign-denominated equity in subsidiaries and associates.

#### NEDBANK GROUP OFFSHORE CAPITAL SPLIT BY FUNCTIONAL CURRENCY

		Jun 2018		Jun 2017			Dec 201		
\$m (US dollar equivalent)	Forex- sensitive	Non-forex- sensitive	Total	Forex- sensitive	Non-forex- sensitive	Total	Forex- sensitive	Non-forex- sensitive	Total
US dollar	386		386	436		436	505		505
Pound sterling	197		197	161		161	185		185
Malawi kwacha	7		7	5		5	4		4
Mozambican metical	45		45	44		44	45		45
Other		504	504		511	511		524	524
Total	635	504	1 139	646	511	1 157	739	524	1 263
Limit	1 100			1 100			1 100		

Foreign-denominated equity in subsidiaries and associates has decreased by 1,7% to US \$635m in June 2018, primarily due to the decrease in the value of the investment made in ETI as a result of Nedbank's share of ETI associate losses, foreign currency translation losses over the period and Nedbank's share of ETI's IFRS 9 transitional adjustment.

Because of its investment in ETI, Nedbank is directly exposed to the US dollar, through translation of its dollar-denominated investment to a rand value. In addition, Nedbank is directly exposed to a number of other African country currencies, in particular the Ghanaian cedi and Nigerian naira as ETI foreign currency translation movements are equity accounted into the group's balance sheet.

The total RWA for the group's foreign-exchange-sensitive foreign entities is R47,0bn, which is low at approximately 8,5% of total RWA.

## **Equity risk in the banking book**

	Jun	Jun	Dec
	2018	2017	2017
Total equity portfolio (Rm)	11 493	9 757	10 647
Disclosed at fair value (Rm)	8 390	6 434	7 094
Equity-accounted, including investment in ETI (Rm)	3 103	3 323	3 553
Percentage of total assets (%)	1,1	1,0	1,1
Percentage of group minimum economic capital requirement (%)	3,9	4,2	3,6

Equity investments in the banking book are primarily undertaken by CIB as part of their private-equity business. Any additional investments are undertaken as a result of operational or strategic requirements.

The equity portfolio disclosed at fair value has increased since December 2017, predominantly due to new acquisitions of approximately R709m. In addition, there was a reclassification from gross loans and advances, which include features other than 'payments solely of principal and interest' and the associated impairments from amortised cost to FVTPL. Consequentially, net loans and advances decreased by R369m and investment securities increased by R261m.

The Nedbank board sets the overall risk appetite and strategy of the group for equity risk, and business compiles portfolio objectives and investment strategies for its investment activities. These address the types of investments, expected business returns, desired holding periods, diversification parameters and other elements of sound investment management oversight.

The ETI strategic investment is accounted for under the equity method of accounting and is therefore not carried at fair value.

## **Counterparty credit risk**

CCR is the risk that a counterparty to a derivative transaction could default before final settlement. An economic loss would occur if a transaction or portfolio of transactions with a given counterparty has a positive economic value at the time of default.

Counterparty credit limits are set at individual counterparty level and approved within the Group Credit Risk Management Framework. CCR exposures are reported and monitored at both business unit and group level. There is continued emphasis on the use of CRM strategies, such as netting and collateralisation of exposures. Nedbank Group and its large bank counterparties have International Swaps and Derivatives Association, International Securities Market Association and International Securities Lending Association master agreements as well as credit support (collateral) agreements in place to support netting and the bilateral margining of exposures.

Netting is applied to underlying exposures only where supportive legal opinion has been obtained as to the enforceability of the relevant netting agreement in the particular jurisdiction.

Nedbank Group applies the CEM for Basel III CCR. The CEM results are also used as input into the economic capital calculations to determine credit economic capital.

The Basel III regulatory standards for CCR contain significant enhancements. Included is the introduction of a standalone CVA capital charge for potential loss due to deterioration in the credit quality of the OTC derivative counterparties.

The increase in the replacement cost of interest rate swap and foreign exchange derivative products since June 2017 to December 2017 was driven by the impact of the rand strengthening in the fourth quarter on client hedges. The subsequent weakening of the rand over the first half of 2018 has resulted to a decrease in EAD in June 2018.

### **CCR1: ANALYSIS OF COUNTERPARTY CREDIT RISK EXPOSURE BY APPROACH**

		Replacement	Potential future	EAD post-	Risk-weighted
Rm		cost	exposure	CRM	assets <sup>1</sup>
June 20	018				
1	CEM CCR (for derivatives)	7 852	7 509	13 019	5 746
4	Comprehensive Approach for CRM (for SFT)			1 680	443
6	Total	7 852	7 509	14 699	6 189
June 20	017				
1	CEM CCR (for derivatives)	7 281	6 456	12 328	5 467
4	Comprehensive Approach for CRM (for SFT)			1 875	549
6	Total	7 281	6 456	14 203	6 016
Decem	ber 2017				_
1	CEM CCR (for derivatives)	10 705	6 145	15 397	6 997
4	Comprehensive Approach for CRM (for SFT)			1 461	321
6	Total	10 705	6 145	16 858	7 318

 $<sup>^1</sup>$  CCR RWA, excluding CVA capital charge (refer to CCR2) and central counterparty (CCP) related RWA (refer to CCR8).

Rows two, three and five are excluded from the CCR1 disclosure as the Internal Model Method (IMM) [for derivatives and securities financing transactions (SFT)], the Simple Approach for CRM (for SFT) and VaR for SFT are not applicable to the group.

Nedbank continues with the management of earnings volatility due to its revaluation risk of CVA exposure from its trading activities to ensure this class of risk is managed within the bank's defined risk appetite. The CVA RWA decreased from R11,5bn in June 2017 to R9,6bn, driven by the impact of the weakening rand in the second quarter of 2018.

### CCR2: CREDIT VALUATION ADJUSTMENT CAPITAL CHARGE

			Jun 2018		Jun 2017		2017
		EAD		EAD		EAD	
Rm		post-CRM	RWA	post-CRM	RWA	post-CRM	RWA
3	All portfolios subject to the Standardised CVA capital charge	13 019	9 562	12 328	11 514	15 397	16 549
4	Total subject to the CVA capital charge	13 019	9 562	12 328	11 514	15 397	16 549

Rows one and two are excluded from the CCR2 disclosure as the group does not apply the Advanced Approach for the CVA charge.

OTC derivative hedges executed in Nedbank non-SA banking entities in Africa and Nedbank Private Wealth (UK) operations are covered by TSA.

### CCR3: STANDARDISED APPROACH - CCR EXPOSURES BY REGULATORY PORTFOLIO AND RISK WEIGHTS

Regulatory portfolio	etail portfolios 20					
Rm	0%	50%	75%	100%	Total credit exposure	
June 2018						
Banks		20			20	
Corporates				20	20	
Regulatory retail portfolios			2	9	11	
Total		20	2	29	51	
June 2017						
Banks	9	5			14	
Corporates				11	11	
Regulatory retail portfolios				13	13	
Total	9	5		24	38	
December 2017						
Banks		41			41	
Corporates				3	3	
Regulatory retail portfolios			23	8	31	
Total		41	23	11	75	

There were no exposures in the 0%, 10%, 20% and 150% risk weight buckets at 30 June 2018.

There were no exposures to sovereigns, non-central government public sector entities, multilateral development banks, securities firms and other assets at 30 June 2018.

SA, as a member of the G20, has committed itself to the OTC derivative reform aimed at reducing systemic risk and Nedbank actively engages with the local industry and its regulators to achieve this objective.

The tables that follow include a breakdown of the group's OTC derivative CCR exposure by entity type (corporate, sovereign and banks).

CCR4: AIRB – CCR EXPOSURES BY PORTFOLIO AND PD SCALE

		EAD post-	Average		Average	LGD maturity		RWA
		CRM	PD	Number of	LGD		RWA	density
	PD scale	Rm	%	obligors	%	Years	Rm	%
June 2018								
Corporate								
	0,00 to < 0,15	2 251	0,07	147	32,06	2,31	399	17,73
	0,15 to < 0,25	911	0,21	93	22,77	3,03	225	24,70
	0,25 to < 0,50	859	0,36	137	27,51	3,82	390	45,40
	0,50 to < 0,75	309	0,64	112	25,50	3,03	137	44,34
	0,75 to < 2,50	1 440	1,22	297	31,64	2,53	1 018	70,69
	2,50 to < 10,00	773	6,60	339	34,91	2,62	1 047	135,45
	10,00 to < 100,0	173	14,00	13	22,41	2,11	189	109,25
	100,0 (default)	39	100,00	4	62,95	3,03	327	838,46
		6 755	2,08	1 142	30,10	2,72	3 732	55,25
Sovereign <sup>1</sup>								
	0,00 to < 0,15	217	0,07	6	17,80	4,77	36	16,59
	0,15 to < 0,25	1 110	0,17	3	23,36	4,76	364	32,79
	0,25 to < 0,50							
	0,50 to < 0,75							
	0,75 to < 2,50	1	1,28	1	86,20	1,00	1	100,00
	2,50 to < 10,00	243	6,24	5	33,53	2,26	193	79,42
	10,00 to < 100,0							
	100,0 (default)							
		1 571	1,10	15	24,18	4,37	594	37,81

		EAD post- CRM	Average PD	Normhan af	Average LGD	Average maturity	RWA	RWA density
	PD scale	Rm	%	Number of obligors	%	Years	Rm	%
Banks						<u> </u>		
	0,00 to < 0,15	4 196	0,09	61	27,05	1,51	663	15,80
	0,15 to < 0,25	756	0,16	9	25,26	1,37	155	20,50
	0,25 to < 0,50	590	0,32	5	31,62	1,52	267	45,25
	0,50 to < 0,75	102	0,64	4	42,28	1,33	84	82,35
	0,75 to < 2,50	642	0,91	12	42,75	1,58	641	99,84
	2,50 to < 10,00	3	3,65	6	46,25	1,00	4	133,33
	10,00 to < 100,0		10,24	1	57,84	1,00		
	100,0 (default)		100,00	2	100,00	1,00	3	
		6 289	0,22	100	29,13	1,50	1 817	28,89
Group								
	0,00 to < 0,15	6 664	0,08	214	28,44	1,89	1 098	16,48
	0,15 to < 0,25	2 777	0,18	105	23,68	3,27	744	26,79
	0,25 to < 0,50	1 449	0,35	142	29,19	2,89	657	45,34
	0,50 to < 0,75	411	0,64	116	29,67	2,61	221	53,77
	0,75 to < 2,50	2 083	1,12	310	35,08	2,24	1 660	79,69
	2,50 to < 10,00	1 019	6,51	350	34,62	2,53	1 244	122,08
	10,00 to < 100,0	173	14,00	14	22,44	2,11	189	109,25
	100,0 (default)	39	100,00	6	63,14	3,02	330	846,15
Total group		14 615	1,17	1 257	29,04	2,37	6 143	42,03
June 2017								
Corporate								
	0,00 to < 0,15	1 409	0,07	162	33,29	2,22	251	17,81
	0,15 to < 0,25	898	0,19	100	24,53	4,13	280	31,18
	0,25 to < 0,50	828	0,36	168	22,77	3,37	262	31,64
	0,50 to < 0,75	226	0,64	120	33,06	2,79	139	61,50
	0,75 to < 2,50	2 248	1,33	344	24,90	2,53	1 288	57,30
	2,50 to < 10,00	835	6,65	399	35,38	2,70	1 134	135,81
	10,00 to < 100,0	98	11,04	15	17,57	3,86	87	88,78
	100,0 (default)	3	100,00	4	22,50	1,00	9	300,00
		6 545	1,62	1 312	27,90	2,84	3 450	52,71
Sovereign <sup>1</sup>								
	0,00 to < 0,15	70	0,04	5	19,13	3,42	8	11,43
	0,15 to < 0,25	1 362	0,17	6	23,17	4,29	413	30,32
	0,25 to < 0,50							
	0,50 to < 0,75							
	0,75 to < 2,50	712	0,91	6	24,35	3,58	420	58,99
	2,50 to < 10,00	3	3,62	1	49,40	1,00	4	133,33
	10,00 to < 100,0							
	100,0 (default)							
		2 147	0,42	18	23,46	4,02	845	39,36
Banks								
	0,00 to < 0,15	3 343	0,09	75	29,28	1,52	557	16,66
	0,15 to < 0,25	951	0,17	14	21,73	1,24	195	20,50
	0,25 to < 0,50	371	0,33	11	34,53	1,75	191	51,48
	0,50 to < 0,75	102	0,64	3	42,72	1,39	86	84,31
	0,75 to < 2,50	686	0,92	10	42,76	1,26	653	95,19
	2,50 to < 10,00	3	3,62	4	56,87	1,00	4	133,33
	10,00 to < 100,0		10,24	2	62,34	1,00		
	100,0 (default)		100,00	2	100,00	1,00	2	
		5 456	0,24	121	30,28	1,45	1 688	30,94

		EAD post- CRM	Average PD	Number of	Average LGD	Average maturity	RWA	RW/ density
	PD scale	Rm	%	obligors	%	Years	Rm	%
Group								
	0,00 to < 0,15	4 822	0,08	242	30,30	1,75	816	16,92
	0,15 to < 0,25	3 211	0,18	120	23,12	3,34	888	27,6
	0,25 to < 0,50	1 199	0,35	179	26,41	2,87	453	37,7
	0,50 to < 0,75	328	0,64	123	36,07	2,36	225	68,6
	0,75 to < 2,50	3 646	1,17	360	28,15	2,50	2 361	64,7
	2,50 to < 10,00	841	6,63	404	35,50	2,69	1 142	135,7
	10,00 to < 100,0	98	11,04	17	17,61	3,86	87	88,7
	100,0 (default)	3	100,00	6	27,20	1,00	11	366,6
Total group		14 148	0,91	1 451	28,14	2,48	5 983	42,2
December 2	017							
Corporate								
	0,00 to < 0,15	2 301	0,07	166	33,51	2,14	391	16,9
	0,15 to < 0,25	1 322	0,20	103	24,64	3,24	351	26,5
	0,25 to < 0,50	938	0,41	162	24,68	2,98	323	34,4
	0,50 to < 0,75	380	0,64	93	25,35	3,32	173	45,5
	0,75 to < 2,50	2 109	1,26	306	25,13	2,44	1 184	56,1
	2,50 to < 10,00	949	6,10	336	36,53	1,92	1 201	126,5
	10,00 to < 100,0	141	14,79	14	30,89	3,22	231	163,8
	100,0 (default)	12	100,00	2	22,43	1,00	37	308,3
		8 152	1,57	1 182	28,80	2,54	3 891	47,7
Sovereign <sup>1</sup>								
_	0,00 to < 0,15	59	0,05	6	18,69	4,76	8	13,5
	0,15 to < 0,25	1 468	0,17	5	23,54	4,53	467	31,8
	0,25 to < 0,50							
	0,50 to < 0,75							
	0,75 to < 2,50	2 153	1,81	2	24,33	3,24	1 494	69,3
	2,50 to < 10,00	18	3,62	4	40,47	1,08	20	111,1
	10,00 to < 100,0							
	100,0 (default)							
		3 698	1,14	17	24,00	3,77	1 989	53,7
Banks			<u> </u>			<u> </u>		<u> </u>
	0,00 to < 0,15	2 591	0,08	58	29,81	1,53	436	16,8
	0,15 to < 0,25	1 449	0,16	8	20,55	1,29	248	17,1
	0,25 to < 0,50	275	0,34	10	33,92	1,62	134	48,7
	0,50 to < 0,75	99	0,64	4	42,30	1,41	81	81,8
	0,75 to < 2,50	507	0,91	9	43,09	1,49	498	98,2
	2,50 to < 10,00	2	3,62	4	54,56	1,00	3	150,0
	10,00 to < 100,0	_	10,24	1	57,84	1,00	J	100,0
	100,0 (default)		100,00	2	100,00	1,00	3	
	100,0 (actually	4 923	0,22	96	28,94	1,46	1 403	28,5
Group		1 323	0,22		20,31	1,10	1 103	20,5
o.oup	0,00 to < 0,15	4 951	0,08	230	31,39	1,85	835	16,8
	0,00 to < 0,15 0,15 to < 0,25	4 239	0,08	116	22,86	3,02	1 066	25,1
	0,15 to < 0,25 0,25 to < 0,50	4 239 1 213	0,17	172	26,78	3,02 2,67	457	25,1 37,6
	0,25 to < 0,50 0,50 to < 0,75	1 213 479	0,39	97	26,78 28,84	2,67	254	53,0
	0,50 to < 0,75 0,75 to < 2,50	479 4769	1,47		28,84 26,68		3 176	53,0 66,6
				317		2,70		
	2,50 to < 10,00	969	6,05	344	36,64	1,90 2 21	1 224	126,3
	10,00 to < 100,0	141	14,79	15	30,91	3,21	231	163,8
	100,0 (default)	12	100,00	4	23,73	1,00	40	333,3

 $<sup>^{\</sup>rm 1}$  Sovereign entities includes PSE and local governments and municipalities asset classes.

Wrong-way risk is identified and monitored in line with internal risk processes. Wrong-way risk exposure is not excessive within Nedbank Group and is monitored by stress testing, which is conducted on both portfolio and counterparty level. Wrong-way risk is currently mitigated through the following mechanisms:

- The predominant use of cash collateralisation to mitigate CCR.
- The low- or zero-margin thresholds with counterparties.

Potential collateral calls or postings are monitored with our various counterparties under a range of market movements and stress scenarios to provide senior management with a forward-looking view of future collateral requirements that may be incurred or imply liquidity risk for the bank.

## **CCR5: COMPOSITION OF COLLATERAL FOR CCR EXPOSURE**

	Collateral used in derivative transactions				Collateral used in SFT		
		of collateral		of posted	Fair value	Fair value	
		eived		teral	of collateral	of posted	
Rm	Segregated	Unsegregated	Segregated	Unsegregated	received	collateral	
June 2018							
Cash – domestic currency		1 921		3 605	3 883	814	
Domestic sovereign debt		420			18 006	10 091	
Government agency debt					29		
Corporate bonds					157		
Equity securities					5 762		
Other collateral					63		
Total		2 341		3 605	27 900	10 905	
June 2017							
Cash – domestic currency		1 022		6 277	9 679	924	
Domestic sovereign debt		387			21 412	4 670	
Government agency debt					158	84	
Corporate bonds					294		
Equity securities					3 739		
Other collateral					55		
Total		1 409		6 277	35 337	5 678	
December 2017							
Cash – domestic currency		1 051		6 124	2 827	869	
Domestic sovereign debt		401			22 316	9 448	
Government agency debt					39	83	
Corporate bonds					184		
Equity securities					4 935		
Other collateral					103		
Total		1 452		6 124	30 404	10 400	

The notional values for single-name credit default swaps are made up of credit default swaps embedded in credit-linked notes, whereby protection of R1 765m is bought and R59m is sold. The remainder of the notional values for single-name credit default swaps relates to trading positions in respect of third-party transactions through the purchase (R3 055m) and sale (R5 657m) of credit protection.

## **CCR6: CREDIT DERIVATIVES EXPOSURE**

	Jun 2018		Jun 2017		Dec 2017	
	Protection	Protection	Protection	Protection	Protection	Protection
Rm	bought	sold	bought	sold	bought	sold
Notionals						
Single-name credit default swaps	4 820	5 716	10 509	11 264	4 564	4 366
Embedded derivatives	1 765	59	3 222	41	2 640	59
Third-party	3 055	5 657	7 287	11 223	1 924	4 307
Index credit default swaps						
Total notionals	4 820	5 716	10 509	11 264	4 564	4 366
Fair values						
Positive fair value (asset)	162	9	177	52	76	95
Negative fair value (liability)	(26)		(31)	(225)	(10)	

Nedbank Group exposure to qualifying central counterparties (CCPs) relates to exchange-traded derivatives.

#### **CCR8: EXPOSURES TO CENTRAL COUNTERPARTIES**

	Jun 2018		Jun 2017		Dec 2	017
Rm	EAD post- CRM	RWA	EAD post- CRM	RWA	EAD post- CRM	RWA
1 Exposures to qualifying CCPs	9 297	68	9 337	53	8 474	54
Exposures for trades at qualifying CCPs (excluding initial margin and default fund contributions), of which	3 256	65	2 564	51	2 622	52
<ul> <li>3 (i) OTC derivatives</li> <li>4 (ii) Exchange-traded derivatives</li> <li>5 (iii) Securities financing transactions</li> </ul>	3 256	65	2 564	51	2 622	52
<ul> <li>(iv) Netting sets where cross-product netting has been approved</li> <li>Segregated initial margin</li> </ul>	5 979		6 708		5 791	
<ul> <li>8 Non-segregated initial margin</li> <li>9 Prefunded default fund contributions</li> <li>10 Unfunded default fund contributions</li> </ul>	62	3	65	2	61	2

Rows 11 to 20 are excluded from CCR8 disclosure as there are no exposures to non-qualifying central counterparties for the first half of 2018.

In December 2017 the BCBS published the paper Basel III: Finalising post-crisis reforms, which among other changes introduced the following to the determination of RWA for CCR:

- The introduction of the Basic Approach and a new Standardised Approach for the measurement of CVA RWA.
- The application of the Foundation IRB Approach for financial institution and large corporate counters.
- The introduction of PD and LGD parameter floors for the Advanced IRB Approach.

Nedbank participated in the Basel Quantitative Impact Study issued by the BCBS in February 2018. This included items for monitoring the impact of reforms.

In April 2014 the BCBS published a revision to the paper The Standardised Approach for measuring CCR exposures, which outlines the new Standardised Approach for calculating EAD in respect of OTC derivatives. The SA-CCR will replace both the CEM and the Standardised Method. Nedbank is well positioned to implement the new requirements and continues to monitor the impact of the new measurement of EAD for CCR. On 23 August 2017 the SARB: PA published Guidance Note 7 of 2017, communicating the regulator's decision to delay implementation of the new standard until March 2019.

# Insurance risk

Insurance is based on the principle of pooling homogenous risks that are caused by low-probability events that cover death, disability, retrenchment, property and motor vehicle damage. Insurance risk incorporates three principal risk components, namely:

- Underwriting risk, where the client is placed into the incorrect risk pool.
- Pricing risk, where the level of risk associated with a pool is mispriced.
- Non-independence, where a single event results in claims from multiple clients. When many clients are affected simultaneously, this is known as a catastrophe.

Insurance risk also includes new business risk.

Actuarial and statistical methodologies are used to price insurance risk (eg morbidity, mortality and retrenchment). Underwriters align clients with this pricing basis and respond to any anti-selection by placing clients in substandard-risk pools, pricing this risk with an additional risk premium, excluding certain claim events or causes, or excluding clients from entering pools at all. Reinsurance is used to reduce the financial impact of claims arising from insured events and is used to reduce the variability of claims and to protect against catastrophe events. The level of reinsurance used is determined by considering the risk appetite mandated by the board.

Insurance risk predominantly arises in Nedbank Insurance, which is within the Nedbank Wealth Cluster.

- Nedgroup Life Assurance Company Limited (Nedgroup Life) offers credit life, simple-risk and savings solutions.
- Nedgroup Insurance Company Limited (NedIC) is a non-life insurer that historically focused predominantly on homeowner's insurance, personal-accident cover and vehicle-related value-added products for the retail market.
- Nedgroup Structured Life (NSL) offers fund, life and sinking-fund life policies.

# Insurance risk strategy, governance and policy

Insurance risk is included in the ERMF, which consists of formal risk policy documentation and effective governance structures. These structures encompass management oversight to achieve independent monitoring. The insurance risk policy for the group formalises and communicates an approach to managing insurance risk by adopting industrywide principles and standards.

Although Nedbank Insurance is responsible and accountable for the management of all risks that emanate from insurance activities, underwriting risk is included in the group ERMF and rolls up into various other governance structures, through its link into the Insurance Risk Framework. The framework seeks to ensure that risk characteristics are properly understood, incorporated and managed where insurance activities are undertaken. Internal and external actuaries at appropriate levels play an oversight role with respect to insurance activities, including reporting and monitoring procedures in respect of product design, pricing, valuation, reinsurance, asset liability monitoring, solvency and capital assessment, and regulatory reporting.

Risks associated with new or amended products in the insurance business units fall under the group's formal product approval policy, which covers pricing and risk reviews by the respective heads of actuarial functions and approval at cluster executive and group executive level (where required). The risks are subsequently managed through the risk management framework outlined above.

The board of Nedbank Insurance acknowledges responsibility for risk management within its business and mandate. Management is accountable to the board and the group for designing, implementing and integrating a risk management process. This allows for optimised risk-taking that is objective, transparent and ensures that the business prices risk appropriately, linking it to return and adequately addressing insurance underwriting risks in its day-to-day activities.

Insurance risk is managed throughout the insurance management process in the following manner:

- Monitoring the concentration of exposures and changes in the environment.
- Performing profile analysis as it relates to the risk characteristics of the insured.
- Monitoring key ratios to ensure that they are in line with expectations and to identify any potential areas of concern or any changes in claims patterns.
- Regular monitoring of policy movements to identify possible changes to the pricing basis for lapses and withdrawals.
- Annually reviewing premiums, taking into account both past and expected claims experience.
- Monitoring the concentration of insurance risk, which includes the assessment of geographical spreads, the impact of catastrophe reinsurance, maximum losses per event and mitigations that include sufficient reassurance and reviewable pricing and exclusions.
- Monitoring rigorous assessment procedures (including Forensics intervention, where required) to ensure that only valid claims are paid.
- Monitoring the effectiveness of reinsurance programmes by the board and various risk forums and external actuaries.
- Monitoring key process and risk indicators in the actuarial control committees.
- Seeking board approval for significant decisions, including the assessment of investment risk, evaluation of reinsurance partners, review of capital provision, credit appetite (as it relates to poor credit ratings of reinsurers and not within the risk appetite of insurance) and financial soundness.
- The Nedbank Wealth Investment Committee monitoring underlying investment risk quarterly, covering asset and liability matching as well as fund and asset management performance. However, policyholder investment mandates are matched monthly. Exposure limits are agreed and approved by the boards of the companies before approval is sought from the Group Alco.
- Following and applying modelling methodologies that are regulated by the Actuarial Society of SA or in the absence of such guidance, worldclass risk management principles.

# Solvency II and SAM

The Prudential Authority (PA), a division of the Reserve Bank, has introduced a revised prudential regime for insurance, the SAM regime, to ensure that regulation of the SA insurance sector remains in line with international best practice.

Nedbank Insurance has been steadily preparing for SAM and significant work and resources have been invested in the comprehensive SAM parallel runs that have been taking place for the last five years. This extensive preparation has positioned us well for the implementation and 'go-live' of the SAM requirements, although further time and effort will be invested to ensure that our processes are appropriately streamlined and automated. Governance committees, policies and processes have been optimised to cater for the new requirements within the existing business units and in the oversight function.

Implementation of the SAM regime formally commenced on 1 July 2018.

- These requirements are already a core part of BaU processes and reporting.
- The approach taken by the businesses is to ensure strategic alignment of SAM by using risk management in the business decisionmaking framework and business planning processes through Own-risk and Solvency Assessments, which are being embedded in the existing reporting structures.
- SAM is an integral component of the insurance companies' strategy, business planning and day-to-day business operations and decisions.

#### **Insurance risk in Nedbank**

As discussed above, insurance risk arises in the Nedbank Wealth Cluster and is assumed by Nedgroup Life, Nedgroup Structured Life and NedIC.

Nedbank Wealth also provides banking and asset management services, and is considered a capital and liquidity 'light' business that generates high returns off a low-risk profile. Accordingly, it is considered a high-growth area in the group. Nedbank Insurance consumes only 1,7% (December 2017: 1,6%) of the group's allocated capital requirement.

The solvency ratios are reflected in the following table. Figures shown reflect the regulatory regime at 30 June 2018, not the new SAM regulatory regime.

#### **SOLVENCY RATIOS**

	Regulatory	Management	Jun	Jun	Dec
Times	minimum	target <sup>1</sup>	2018	2017	2017
Long-term insurance (Nedgroup Life)	1,00	> 1,5	6,7	10,6	7,3
Long-term insurance (Nedgroup Structured Life)	1,00	> 1,5	1,5	1,3	1,4
Non-life insurance (NedIC)	1,00	> 1,5	1,7	1,5	1,6

 $<sup>^{</sup>m 1}$  Management target is based on the greater of regulatory and economic capital.

The long-term insurance ratio of Nedgroup Life is well above statutory and management target levels, mainly due to higher economic capital requirements in the business.

The following points explain the movements in the solvency ratios from December 2017:

- The Nedgroup Life solvency ratio declined as a result of a R350m dividend declared in March 2018. The reduction in the ratio was partially offset by retained earnings in 2018.
- There was a declining trend in the prior year (2016 to 2017) on Nedgroup Structured Life solvency measures due to the significant increase of assets under management during 2017 which results in a higher capital requirement. The position has stabilised with a slight increase in 2018, with assets under management remaining relatively flat during the period.
- The NedIC solvency measure improved as a result of profits earned and no dividends being declared during the period.

# Concentration and off-balance-sheet risks

Nedbank Group's holistic groupwide concentration risk measurement is a key feature of its Risk Appetite Policy and Framework.

All economic capital (ICAAP) and ERMF risk types are analysed by appropriate segmentation for possible concentrations. Segmentations considered are single name, industry, geographic, product, collateral and business unit.

Credit risk is the most material risk type as can be seen in its 65% contribution of the group's total economic capital. A liquidity crisis, however, is plausible due to the fact that banks transform short-term liquidity into long-dated funding, which exposes banks to liquidity mismatches, the most common cause of bank failures. Therefore, liquidity risk and credit risk are considered the two concentration risk focus areas for Nedbank, which also aligns with the lessons learnt from the global financial crisis. Other potential areas of concentration risk in Nedbank include equity risk in the banking book – property investments, property risk and IRRBB.

Concentration risk appetite targets are set in areas where Nedbank Group is materially exposed to concentration risk, as well as in areas of underconcentration, to unlock opportunities. The targets are agreed by senior management and approved by the board.

Concentration risk is also a key feature of Nedbank Group's Market Risk Framework. However, undue concentration risk is not considered to prevail in the group's trading, forex and equity risk portfolios (evident in the low percentage contributions to total economic capital). These concentrations are monitored continuously by Group Alco and the board's GRCMC.

#### **Credit risk**

Within Nedbank Group credit concentration risk is actively managed, measured and ultimately capitalised through the group's economic capital and ICAAP. Unmanaged risk concentrations are potentially a cause of major risk in banks and are therefore considered separately as part of Nedbank's RAF.

# Single-name credit concentration risk

The group's credit concentration risk measurement incorporates the asset size of obligors/borrowers into its calculation of credit economic capital. Single-name credit concentration, including the applicable regulatory and economic capital per exposure, is monitored at all credit committees within the group's ERMF.

The table below illustrates that Nedbank Group does not have excessive single-name concentration, as credit economic capital attributable to these exposures remains relatively low as a percentage of total economic capital at 7,54% (June 2017: 8,13%).

#### **TOP 20 NEDBANK GROUP EXPOSURES**

	Excluding banks and government exposure					
	Internal NGR <sup>1</sup>	Exposure	Percentage of total group			
Number	(PD) rating	(Rm)	credit economic capital			
June 2018						
1	NGR09	8 753	0,46			
2	NGR23	8 672	2,79			
3	NGR07	6 300	0,19			
4	NGR12	5 549	0,48			
5	NGR06	5 249	0,16			
6	NGR12	5 014	0,11			
7	NGR10	4 551	0,43			
8	NGR09	4 192	0,39			
9	NGR07	4 159	0,29			
10	NGR14	4 846	0,55			
11	NGR10	3 662	0,08			
12	NGR03	3 650	0,09			
13	NGR10	3 404	0,24			
14	NGR06	3 286	0,10			
15	NGR12	3 247	0,70			
16	NGR07	3 221	0,06			
17	NGR10	3 207	0,14			
18	NGR07	3 093	0,10			
19	NGR09	3 040	0,16			
20	NGR12	2 987	0,02			
Total of top 20 exposures	NGR17	90 082	7,54			
Total group <sup>2</sup>		1 045 179	100,00			

<sup>&</sup>lt;sup>1</sup> Nedbank Group Rating.

Direct exposure to the SA government relates mainly to statutory liquid-asset requirements, as well as Basel III liquidity buffers, and constitutes 13,1% (June 2017: 11,9%) of total balance sheet credit exposure.

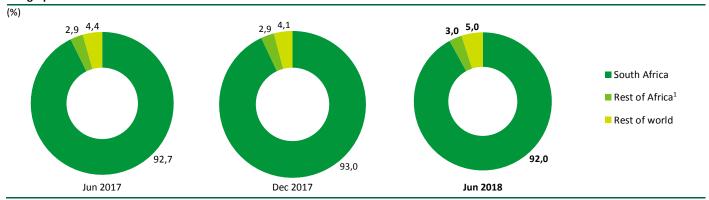
■ This increase relates to the buildup of HQLA, in line with the group's planning for the transitional LCR requirements that became effective on 1 January 2015. In line with these increasing transitional requirements, exposure to the SA government will continue to increase through to 2019.

 $<sup>^{\</sup>rm 2}$  Total group EAD includes all Nedbank Group subsidiaries.

# Geographic concentration risk

Geographic concentration risk in SA has decreased to 92,0% (June 2017: 92,7%). Practically, however, this high concentration to SA is a direct consequence of Nedbank's strong footprint in the domestic banking market. As Nedbank has strong retail and wholesale operations in SA, in line with its universal bank business model, there is no undue concentration risk from a geographic perspective.

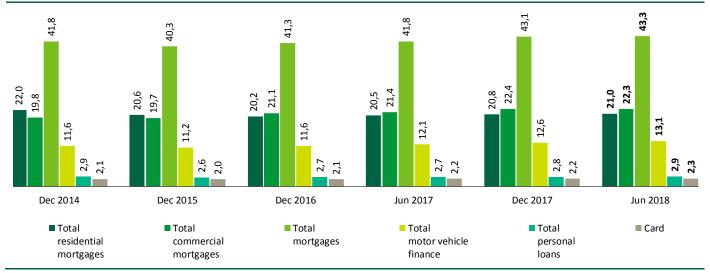
#### Geographic concentration risk



<sup>&</sup>lt;sup>1</sup> The Rest of Africa geographical segment consists of the SADC banking subsidiaries. It does not include transactions concluded with clients resident in the rest of Africa by other group entities within Nedbank CIB nor significant transactional banking revenues.

#### Product concentration risk

#### Percentage of total gross loans and advances by major credit portfolio



Nedbank Group has adopted a selective origination, client-centred growth emphasis as a core component of its SPT strategy.

Nedbank's approach to managing its mortgages (or property portfolio) is to take a holistic approach across both residential and commercial mortgages, preferring a leading market share in commercial mortgages, given the better risk-based economics and returns.

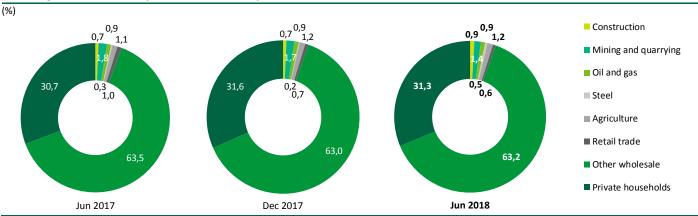
- Commercial-mortgage lending has increased since 2014 from 19,8% to 22,3% (June 2017: 21,4%) of gross loans and advances, and consequently Nedbank Group has maintained its leading local market share position, currently at 39,6%. This potentially high concentration is mitigated by good-quality assets, high levels of collateral, a low average LTV ratio (approximately 40,46%), the underpinning of corporate leases, and a highly experienced management team considered to be the leader in property finance in SA.
- While Nedbank Group has the smallest residential-mortgage portfolio among the local peer group at 14,5% of market share, the contribution of these advances as a percentage of total gross loans and advances is still substantial at 21,0% in June 2018 (June 2017: 20,5%). However, this level of contribution to the balance sheet is lower than that of its peers.
  - The focus in Home Loans since 2009 has been lending through our own channels (including branch, own sales force and more recently Nedbank's online home loan application) and to a far lesser degree, compared with the industry, through mortgage originators. This enables a better-quality risk profile, more appropriate risk-based pricing and therefore more appropriate returns, with a client-centred approach.
- When including commercial and residential mortgages, Nedbank's total mortgage market share is in line with that of its peers at 21,6%.
- Total motor vehicle finance exposure in Nedbank Group has increased to 13,1% (June 2017: 12,1%) of gross loans and advances. Current market share is approximately 28,1%, which is second among the big four banks in SA. Despite the current slowdown in growth across the vehicle finance sector, MFC's gross loans and advances grew by 9,7% due to its leading position in the secondhand and affordable-vehicle markets.

- Personal-loan advances remained constant from 2014 at 2,9% of gross loans and advances. Personal-loan gross loans and advances increased by 8,2% from June 2017.
- As a percentage of total gross loans and advances, card loans and advances increased marginally from 2,1% in 2014 to 2,3% in June 2018 (June 2017: 2,2%).

# Industry concentration risk

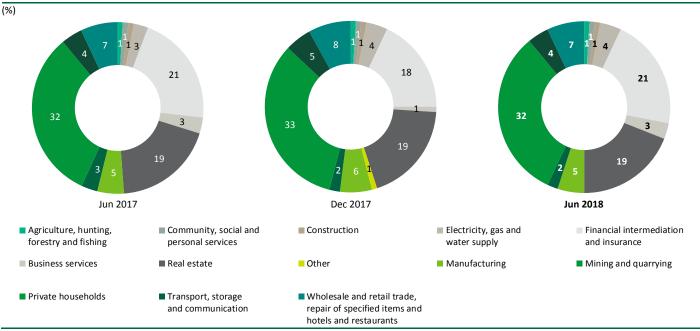
- The group has low concentration risk to the agriculture sector (affected by the recent drought) as well as those portfolios impacted by commodity prices that have stabilised at higher levels. These industries are a small component of the overall portfolio, representing 4,0% of the group's on-balance-sheet exposure, down from 4,1% in June 2017.
- All impacted portfolios are closely monitored by Nedbank, and the quality thereof is assessed on an ongoing basis to ensure that the levels of credit impairments on these portfolios are adequate. Comprehensive deep dives and sensitivity analyses have been performed on these portfolios to obtain deeper insights into the changes experienced in the client base as well as to quantify the impact of further potential economic stresses.

## Percentage of Nedbank Group on-balance-sheet exposure<sup>1</sup>



<sup>&</sup>lt;sup>1</sup> Nedbank Group on-balance-sheet exposure of R877bn (December 2017: R839bn).

## Nedbank Group industry exposure<sup>1</sup>



<sup>&</sup>lt;sup>1</sup> Nedbank Group credit exposure, which includes all credit exposure with the exception of unutilised committed facilities.

The group concludes that credit concentration risk is adequately measured, managed, controlled and ultimately capitalised. There is no undue single-name concentration and any sector concentrations that do exist are well managed as indicated above. While there is a concentration of Nedbank Group loans and advances in SA, this has been positive for Nedbank Group and is a function of its domestic footprint and universal bank business model.

# Equity risk in the banking book - Property investments

The equity risk portfolio is concentrated in real estate at 35%. However, real estate equity investments constitutes only 0,39% of total assets at 30 June 2018. In terms of sector split, 24% of the real estate portfolio is in retail property, 11% in commercial property, 16% in residential property and 34% in mixed-use developments. In terms of geographic classification, 41% of the real estate portfolio is concentrated in Gauteng. The investment risks are neither unduly large nor concentrated for Nedbank Group.

# **Property risk**

Property market risk includes exposure in Nedbank's business premises, property acquired for future expansion and PIPs. Property risk is highly concentrated, with 81% in Gauteng. The concentration risk in the headoffice (including regional) buildings is driven by the strategic need for Nedbank to own the key buildings from which it operates. Sandton is a high-growth area and the financial centre of Africa. However, any further property investment activities in the Sandton area will be considered against the existing concentration risk.

# Liquidity risk – Wholesale funding reliance, consistent with local peers

Nedbank currently sources 38,6% of total funding from wholesale deposits, which include deposits from asset managers, interbank deposits and repo-related deposits. While the overall objective is to reduce wholesale funding reliance through increases in retail and commercial deposits, wholesale deposits are typically a source of long-term funding playing an important part in managing the overall term funding profile and reducing short-term contractual funding reliance.

# Interest rate risk in the banking book - Prime/JIBAR reset risk and endowment sensitivity

Nedbank, like its local peer group, has a large quantum of assets linked to the prime index rate. This portfolio is typically funded through deposits linked to short-term deposit rates and term deposit rates that are risk-managed back to three-month repricing Johannesburg Interbank Agreed Rate (JIBAR). This creates short-end reprice risk that exposes the balance sheet to a prime/JIBAR reprice mismatch.

Nedbank's balance sheet is also funded through a large amount of rate-insensitive funding raised through equity and/or transactional deposits. These deposit balances and equity are not rate sensitive as they bear no interest and accordingly earn a higher return when interest rates are high and a lower return when interest rates are low, given that they have been deployed into variable-rate-linked assets. This exposes the bank to endowment sensitivity, which is the main reason for exposure to IRRBB in the balance sheet (see page 97).

### Off-balance-sheet risks

With regard to off-balance-sheet risks, there are only four 'plain vanilla' securitisation transactions (see page 92), which have funding diversification rather than risk transfer objectives. In addition, there are no 'exotic' credit derivative instruments or any risky off-balance-sheet special-purpose vehicles.

Furthermore, the size of off-balance-sheet credit is monitored through the inclusion of the metric EAD:exposure in the suite of credit risk appetite metrics. The quantification of credit RWA through the use of EAD ensures capital requirements include off-balance-sheet exposure. The introduction of the Basel III leverage ratio is a further metric that places focus on off-balance-sheet activities as this metric calculates the leverage of the organisation with respect to both on- and off-balance-sheet exposures (see page 37), and Nedbank Group is well below both Basel and SARB: PA limits with respect to the leverage ratio. A breakdown of the size of off-balance-sheet credit is shown on page 43, together with a breakdown of the contribution of each cluster.

# **Operational risk**

#### Introduction

Operational risk is the risk of loss resulting from inadequate or failed internal processes, people and systems, or as a result of an external event.

Operational risk is generated in all areas of the business and is inherent in all products, activities, processes and systems. This includes all risks arising from business practice, processing errors, failed execution, fraud, cyberattacks and information security breaches, system failures, and physical security failures. Nedbank's operational risk is managed through a framework designed to ensure that the risks associated with the group's activities are appropriately managed. Identifying and managing operational risk within acceptable levels and adopting sound management practices, is a core element of our activities and is aimed at protecting and promoting a sustainable business.

Nedbank Group quantifies operational risk using the AMA model and continues to invest in the enhancement of its operational risk measurement and management approaches.

# Top and emerging operational risk themes

Operational risk is well managed across Nedbank, including the AMA system. The group operated within approved operational risk appetite limits on a net basis, with limited significant loss events greater than R5m experienced during the period. The focus remains on managing Nedbank's top operational risks and enhancing the control environment. In addition to the enterprise top 10 risks, the top and emerging operational risks that Nedbank is actively managing are as follows:

#### TOP AND EMERGING OPERATIONAL RISK THEMES

Risk type	Description
Execution risk	<ul> <li>The risk of loss due to failures in processing transactions or managing processes.</li> <li>Execution risk is expected as Nedbank runs complex operations to ensure the group remains relevant and is continuously adapting to the environment in which we operate.</li> </ul>
Cyberrisk	The risk of loss or theft of information, data and money, or loss of accessibility of service. The growing threat of cyberattacks.
IT risk	<ul> <li>Risks associated with running the bank and transforming the bank in a sustainable manner.</li> <li>Includes risks relating to the bank's IT infrastructure, communication technology as well as the consolidation, simplification and replacement of legacy systems in the IT environment.</li> </ul>
Regulatory risk	■ The risk arising from regulatory change due to the dynamic nature, varied interpretation and manner of implementation of regulations.
People risk	The risk associated with inadequacies in human capital and the management of human resources, policies and processes. This results in an inability to attract, manage, motivate, develop or retain competent resources, with an associated negative impact on the achievement of group strategic objectives.
Conduct and culture risk	<ul> <li>The group's pattern of behaviour in executing its pricing and promotion strategy.</li> <li>The relationship between the bank and the public, market, laws, best practices, client expectations, regulators and ethical standards.</li> </ul>
Financial-crime risk	This risk includes a combination of subrisk categories such as regulatory contraventions relating to commercial crime, violent crime and financial crime.
Outsourcing and third-party risk	The risk arising from the use of a service provider to perform a business activity, service, function or process that could be undertaken by the bank.

These top risks and net operational risk losses were contained within the approved risk appetite limits.

## Organisational risk structure and governance

The operational risk governance structure, supported by the lines-of-defence model, forms an integral part of the ORMF. Group Operational Risk is the central operational risk function for Nedbank, independent from business line management, and is part of the second line of defence reporting directly to the CRO. The primary executive and board level committees overseeing operational risk are the GORC and GRCMC.

Managing operational risk is key in all our business activities and is implemented through our ORMF. The ORMF supports the identification, assessment, management, monitoring and reporting of material operational risks. Group Risk continues to manage, implement and enhance the ORMF and its subpolicies and frameworks.

The ORMF is reviewed and updated annually to align policies, processes, methodologies and standards with current local and international best practice. Amendments to the ORMF are approved by the GORC and are ratified by the board's GRCMC. The methodologies contained therein are embedded in the businesses, including for the purposes of the ICAAP.

# Operational risk measurement, processes and reporting systems

The primary operational risk measurement processes in the group include tracking of KRIs, RCSAs, monitoring of BEICFs, collection and governance processes of ILD, consideration of ELD, scenario analysis and capital calculation. These processes are integrated and designed to function in a mutually reinforcing manner. Operational risk quantitative and qualitative tools (as illustrated below) are combined into a comprehensive methodology to measure and manage operational risk at Nedbank.

#### **OPERATIONAL RISK TOOLS**

Nedbank uses an integrated ORM system that enables the assessment and management of operational risk, and provides a holistic view of the group's operational risk profile.

	Operational risk tool	Description
	Key risk indicators (KRIs)	<ul> <li>KRIs are metrics that provide insight into trends in exposures to key operational risks.</li> <li>They are often paired with escalation triggers that provide warning when indicators are approaching or exceeding threshold and prompt mitigation planning.</li> </ul>
Qualitative	Risk and control self-assessments (RCSAs)	The main objective of the RCSA process is to enable business and risk managers proactively to identify, assess and monitor key risks within defined risk tolerance and appetite levels.
	Business environment and internal control factors (BEICFs)	<ul> <li>The group considers BEICFs as part of the RCSA process.</li> <li>Consideration of BEICFs enables the group to regard any changes in the external and internal business environment, consider inherent risks as a result of any changes in the business environment and design appropriate controls.</li> </ul>
Quantitative	Internal loss data (ILD)	<ul> <li>The collection and tracking process of ILD is retrospective and enables monitoring of trends and analysis of the root cause of loss events.</li> <li>Boundary events are losses that manifest in other risk types, such as credit risk, but have relevance to operational risk because they emanate from operational breakdowns or failures. Material credit risk events caused by operational failures in the credit processes are flagged separately in the ILD collection system in line with the regulation issued to banks relating to the Banks Act (Act No 94 of 1990) and Basel III requirements. The holding of capital related to these events remains in credit risk but are included in the ORMF to assist with the monitoring, reporting and managing of control weaknesses and causal factors within the credit process.</li> <li>Material market risk events caused by operational failures in the market risk processes are also flagged separately in the ILD collection system. The capital holding thereof is included in the operational risk capital.</li> </ul>
	External loss data (ELD)	<ul> <li>ELD is used to incorporate infrequent, relevant and potentially severe operational risk exposures in the measurement model. The effects of ELD are indirectly incorporated in the operational risk capital calculation model through the scenario analysis process, and is used to benchmark the internal diversification matrix.</li> <li>Nedbank is a member and actively participates in working groups of the Operational Riskdata eXchange Association (ORX) that accumulates data submitted quarterly by each of the member banks. The group also subscribes to the SAS Global Database, which contains data sourced within the public domain and media.</li> </ul>
	Scenario analysis	Operational risk scenario analysis serves as the primary input for operational risk loss exposure estimates and is one of the data sources for operational risk modeling and measurement. Scenario analysis uses expert judgement to estimate the operational risk exposure of the group and focuses on operational risks that may impact the solvency of the bank. Nedbank uses a set of anonymous operational risk scenarios from ORX to identify trends and benchmark with international peers.

# Capital modelling and capital allocation

Nedbank calculates its operational risk regulatory capital requirements using partial and hybrid AMA, with diversification, which has been in effect since 2010. The majority of the group (90%) applies the AMA and the remainder (including operations in RoA) applies TSA.

Under the AMA, Nedbank has approval to use an internal model to determine risk-based operational risk capital requirements for all business units using AMA. ILD and operational risk scenarios represent the main direct input into the model. The outputs of the other data elements, namely ELD and BEICFs, inform the scenarios. EL and insurance offsets are not used to reduce the regulatory operational risk capital.

The model generates a regulatory capital requirement, which is determined at a 99,90% confidence level. The final capital number is then calculated by including updates for TSA entities and meeting SARB: PA minimum requirements relating to the prescribed AMA capital floor.

Operational risk capital is allocated on a risk-sensitive basis to clusters in the form of economic capital charges, providing an incentive to improve controls and to manage these risks within established operational risk appetite levels.

The model and outputs undergo a robust annual validation exercise by an independent model validation unit. Any issues identified are reported, tracked and addressed in accordance with Nedbank's risk governance processes. The model is subject to an annual audit by GIA.

The AMA model was reviewed by the regulator, who has granted permission for the implementation of enhancements that include the latest techniques and technologies for operational risk modelling.

# Operational risk appetite

Nedbank has a board-approved operational risk appetite statement that is aligned with the group's RAF. The operational risk appetite combines both quantitative metrics and qualitative judgement to encapsulate financial and non-financial aspects of operational risk. The operational risk appetite statement makes explicit reference to key operational risks. Operational risk appetite is set at a group and cluster level, enabling the group and clusters to measure and monitor operational risk profiles against approved risk appetite limits.

## Reporting

A well-defined and embedded reporting process is in place. Operational risk profiles, loss trends, as well as risk mitigation actions and projects are reported to and monitored by the risk governance structures of the group.

# Insurance obtained to mitigate the bank's exposure to operational risk

Nedbank's insurance programmes are structured to drive a high standard of risk management within the group. The group's insurable operational risk is not simply transferred to third-party insurers, but a significant interest in the financial impact of losses for certain classes of insurance is retained within the group captive insurance company, namely Nedbank Group Insurance Company Limited (NGICL). As a result of the group's comprehensive self-insurance strategy, the group is always cognisant of the fact that it needs to mitigate insurance risk to the greatest extent possible in order to protect the reserves of NGICL. The group structures the insurance programmes in conjunction with underwriters, who ultimately bear the catastrophic, unpredictable, large events. The group manages the predictable, higher-frequency, lower-severity losses through NGICL. The NGICL retention structure has been instrumental in controlling pay-away premiums and has assisted the group in adverse insurance market conditions where insurance rates hardened. Recent years reflect effective control in premium spend against insurance VaR. The group renewed its insurance policies effective 1 June 2018 as per expiring terms, notwithstanding tightened insurance market conditions.

# Managing subcomponents of operational risk

Specialist functions, policies, processes and standards have been established and integrated into the main ORMF and governance processes as described under the following sections.

# Cyberresilience

Cyberrisk is listed as a Nedbank top 10 risk and is continuously receiving the required focus by the board and the Nedbank security community to address known and newly identified gaps through various initiatives. The exposure to cyberrisk is increasing with greater interconnectedness in the banking ecosystem, rapid adoption of new technologies [eg cloud computing, application programming interfaces (APIs), RPA, blockchain, etc]. Client expectations and preferences, Nedbank's digital strategy, Digital Fast Lane initiatives, ME execution as well as New Ways of Working, will further increase our exposure to cyberrisk and the demand for cyberrisk management to be incorporated into these strategic initiatives.

Nedbank developed a Cyber Resilience Risk Management Framework (CRRMF) to enhance cyberresilience in the group, which provides a framework for the coordinated management of intelligence, technology and business operations to manage Nedbank's business information assets effectively. The framework aims to prevent unwanted consequences and to protect critical assets and Nedbank's reputation against external and internal cyberthreats through technical and non-technical measures. Ongoing initiatives are being driven across the organisation to address the enhancement of the operational and control environment.

There is continued implementation of various components of the Cyber Resilience Risk Management Framework to improve Nedbank's cyberresilience. Several cyberworkstreams were incorporated in a Cyberresilience Programme, including independent red-team/blue-team testing, enhancement of cybersecurity awareness among staff, enhanced protection of 'crown jewels', improved threat modelling, etc.

New initiatives are added as and when threats are identified, or as the cyberrisk environment changes. The bank's external security (internet footprint), which was recently independently measured by a reputable third party, is at an advanced level of maturity. Nedbank's response to cybersecurity incidents and vulnerabilities, identified by the bank's CSIRT, remains timeous and successful, with minimal impact to the bank.

Measures taken by Nedbank to enhance cyberresilience include:

- Adopting and implementing the Federal Financial Institutions Examination Council (FFIEC) cyberrisk assessment tool.
- Setting of both quantitative and qualitative cyberrisk appetite and incorporation thereof into the CRRMF.
- 'Crown jewel' systems have been identified, to apply targeted controls to critical systems.
- A threat model has been created and applied to 'crown jewel' systems.
- A comprehensive cybersecurity awareness programme has been implemented with regular testing of staff's cyberbehaviour. The results of the internal awareness campaigns demonstrates that staff are more informed and aware of cybersecurity.
- A targeted attack simulation (red-team/blue-team test) was performed, as well as attack path mapping exercises, providing a better understanding of the risks posed to 'crown jewels' within Nedbank, as well as areas of strength within the cyberresilience area.
- Nedbank successfully completed the SWIFT attestation process by the December 2017 deadline, as required by the SWIFT Customer Security Programme (CSP).
- Improvement in password practices was achieved through ongoing cybersecurity awareness and updates to password complexity.
- A Cybersecurity Management Information System was implemented, which provides metrics for the management, measurement and monitoring of key cyberrisk indicators.
- Third-party cyberrisk management processes were enhanced.

# Business continuity management

BCM in Nedbank ensures resilient group business activities in emergencies and disasters. A centralised BCM function provides overall guidance and direction, monitors compliance with regulatory and leading practice requirements and facilitates regular review of BCM practices. Independent reporting and assurance of BCP activities are also provided and a focus on identifying critical processes and dependencies across the group facilitates cost-effective BCP strategies.

# Legal risk

The group conducts its activities in conformity with the business and contractual legal requirements applicable in each of the jurisdictions where the group conducts its business. Failure to meet these legal requirements may result in unenforceable contracts or contracts not enforceable as intended, litigation, fines, penalties or claims for damages, failure to protect the group's intellectual property, unproductive legal costs and other adverse consequences.

The Legal Risk Management Framework is in place to ensure that sound operational risk governance practices are adopted and implemented in respect of legal risk. The framework addresses key legal risk types such as incorrect legal advice in respect of legal risk; significant new or amended laws; inappropriate selection and use of external lawyers; legal documentation used in transactions that is not enforceable as intended or may be enforced against the group in an adverse way; inadequately managed litigation involving the group as either claimant or defendant; the insufficient protection of the group's intellectual property; and the breach of competition laws, and reputational risk.

Nedbank has a decentralised legal risk model with central coordination. Group Legal performs the legal work for all central functions and deals with all intellectual property groupwide and litigation against the group and group entities.

## Financial-crime risk

Nedbank recognises financial crime as a major operational risk that has the potential to result in significant losses. Financial-crime risk includes fraud, cybercrime, corruption and misconduct by staff, clients, suppliers, business partners, third parties and other stakeholders. The group takes a proactive and vigorous approach to managing and mitigating this risk in all its forms and has a zero-tolerance stance against fraud and corruption, and any other form of dishonesty on the part of its employees.

Financial-crime theme	Mitigation
Fraud	■ The group has a board-approved Fraud Risk Management Framework that guides the management of fraud risk.
	■ The implementation of controls relating to significant fraud risks identified is monitored by the Fraud Risk Committee and oversight is provided by the FCC.
	During the first half of 2018 an overall increase in fraud was experienced. However, fraud-related losses remained well within the bank's fraud loss tolerance threshold for the year.
	Key to the successful containment of fraud risk is the greater focus on creating awareness through training, prevention initiatives such as fraud risk reviews, and continuous improvement of detection solutions. Various new measures to prevent, detect, deter and respond to fraud have been implemented.
	Proactive fraud risk assessments are performed on a selection of products, processes and systems to identify weaknesses and enhance controls in an effort to prevent exploitation of these weaknesses.
	■ Targeted awareness training is provided to employees and clients. A total of 1 565 Nedbank employees underwent face-to-face fraud prevention training in the first half of 2018. In addition, 590 representatives from 34 Corporate and Business Banking clients also received facilitated fraud awareness training.
	■ Various reporting channels are available to employees, vendors, service providers and clients. Security, fraud, corruption and other dishonesty-related incidents can be reported at any time through an internal Nedbank Group Risk Reporting Line (NGRRL), which is managed by Group Financial Crime and Forensic Services (GFCF). The number of reports received and registered by NGRRL and investigated by GFCF was 4 131 (June 2017: 3 405).
	■ The NGRRL is supported by an external, independently managed, whistleblowing hotline. This hotline is available to employees and clients in SA as well as RoA subsidiaries in Namibia, Swaziland, Lesotho, Malawi and Zimbabwe. During the first half of 2018, altogether 140 (June 2017: 163) anonymous whistleblowing reports were referred for investigation to GFCF. Of these investigations, 3 (June 2017: 9) led to disciplinary action against employees.
	In line with the bank's zero-tolerance approach to fraud, disciplinary and criminal proceedings are instituted in all cases where the evidence dictates. During the first half of 2018, a total of 54 (June 2017: 95) Nedbank Group employees were dismissed for dishonesty following internal investigations.
Cybercrime	Nedbank has introduced various measures to counter cybercrime. New products and changes to existing products, as well as new threats, form the basis for numerous cybercrime-related risk assessments conducted by GFCF. A fully fledged cybercrime laboratory uses state-of-the art technology to analyse and monitor suspicious activities. Close cooperation between the Group Technology Information Security Department and GFCF led to rapid investigation of suspected cybercrime events. Nedbank continues to work closely with industry bodies, peers and law enforcement agents sharing threat information.
Staff integrity	People risk is managed and minimised through a number of specific controls that are incorporated into recruitment and selection processes for all permanent and temporary employees, contractors and consultants.
	■ During the first half of 2018 4 258 (June 2017: 1 952) applicants we screened. A total of 0,80% (June 2017: 2,56%) of these job applications were declined during the first half of 2018 where applicants did not meet the minimum integrity requirements.

Financial-crime theme	Mitigation
Online fraud	<ul> <li>The group sees the prevention of online banking fraud as a priority and maintains a state-of-the-art real-time fraud detection system that has resulted in fraud prevention. Compromised accounts of 1 449 (June 2017: 663) clients were blocked before fraud could occur.</li> <li>Nedbank continues to participate in industry initiatives with other FIs and law enforcement agencies to ensure that the perpetrators of online criminal activities are identified, caught and brought to book.</li> </ul>
Corruption and bribery	■ The group has a board-approved Corruption Risk Management Framework that guides the management of fraud risk.
	The implementation of controls relating to the significant corruption risks identified and monitored by the Corruption Risk Committee and oversight is provided by the FCC.
	Employees, managers, group exco as well as the managing directors of the RoA subsidiaries have signed the annual conduct pledge, again committing themselves to taking a stand against corruption and to upholding ethical and transparent business practices.
	Given the high levels of corruption experienced in SA, anti-corruption interventions were added as a key performance indicator, and are validated by an external party. This was undertaken to provide assurance to Nedbank's stakeholders that its actions in this regard are robust and in no way contribute to the recent negative cycle. During the first half 2018 corruption screening was done on 100% (June 2017: 100%) of Nedbank's operations without any material concerns or issues being raised.
	Nedbank has an ongoing training and awareness programme that includes a focus on the requirements of the UK Bribery Act as well as the risk of corruption in general. This includes electronic online learning, presentations and workshop sessions.
	Annual corruption risk assessments conducted in terms of the UK Bribery Act are integrated into the RCSA process. An attestation regarding the assessment of this risk has also been included in the letter of representation, which is signed on a biannual basis.
	All new and existing vendors are requested to complete a corruption risk assessment questionnaire, either when they are onboarded or when their existing contract is renewed. In addition, ad hoc corruption risk assessments are conducted in high-risk areas.
	In terms of third-party risk management, a process is in place for ongoing and risk-based third-party due diligence. The process is aimed at ensuring that all third parties continue to comply with relevant regulations, protect confidential information, have a satisfactory performance history and record of integrity and business ethics, and also mitigate operational risks. The group's supplier risk management process is being enhanced to include fourth parties (subcontractors) that may pose a potential risk to the group while delivering a service to our approved third parties. The second enhancement includes the identification of the beneficial ownership of our third parties that may present corruption or reputational risks to the group.
	Group-level corruption risk appetite statements have been approved and are being tracked through the appropriate governance committees. In the first half of 2018 there were 7 cases of confirmed corruption (June 2017: 4) and 3 dismissals (June 2017: 5).

# Compliance and regulatory risk

Compliance and regulatory risk has become increasingly significant given the heightened regulatory environment in which financial services organisations operate. Banks in SA are required to comply with approximately 200 statutes, as well as the relevant applicable subordinate measures. In addition, banks must stay abreast with all new regulatory instruments that are published throughout the year. Nedbank remains committed to the highest regulatory and compliance standards, particularly in the light of the increasing complexity of laws and regulations under which it operates.

Compliance/Regulatory risk theme	Description	Mitigating actions
Financial Sector Regulatory Act (FSRA)	Certain sections of the FSRA came into effect on 29 March 2018 and 1 April 2018. The FSRA fundamentally changes the legal framework in terms of which the financial services industry has been operating to date. The main change brought about by the FSRA is to create the following two distinct regulators:  A prudential regulator (Prudential Authority), which has replaced the Bank Supervision Department.  A market conduct regulator (Financial Sector Conduct Authority), which has replaced the Financial Services Board (FSB).  This system of dual regulation is known as the Twin Peaks Model, which separates macro prudential regulation from conduct supervision.	The FSRA has a limited operational impact in Nedbank. However, it will result in extensive changes to the current regulatory system and the manner in which regulations are applied.  The sections that have commenced on 29 March 2018 and 1 April 2018 do not have a material impact on Nedbank Group. However, item four in Schedule 4 makes amendments to legislation such as the Banks Act, Longterm Insurance Act, Short-term Insurance Act, FICA, FAIS, CISCA, and NCA. These amendments give effect to the FSRA and will be operationalised as BaU.  Nedbank is on track with its preparation for the new regulatory regime of Twin Peaks and has changed its internal structure and processes to align with the new Twin Peaks Model. Nedbank has also proactively embarked on a MCCP, which is based on international best practise and will position the group favourably in terms of market conduct requirements.

Compliance/Regulatory risk	
theme	

Consumer Protection and the Retail Distribution Review (RDR)

#### Description

Market conduct has increasingly become a focus for both the regulator and businesses in SA. The Twin Peaks Model is intended to address the gaps in the existing Consumer Protection Framework. This regulation will have a significant impact on how financial institutions conduct their business and will further provide a tool to assess their culture in the context of good customer outcomes and mitigation of conduct risk.

In June the FSCA published the RDR Investment Discussion Document for comment. The purpose of the paper is to elicit stakeholder comment on the RDR proposals relating to investment management and investment advisers. The paper discusses the different ways of defining the activity of 'investment management' and clarifying the nature of the legal and business relationships between different types of entities in the investments sector. In addition, the paper also deals with the resulting fee and remuneration implications of adopting the various RDR proposals for the investment sector. Comments to the FSCA are due on 17 August 2018

Anti-money-laundering (AML), combating the financing of terrorism (CFT) and sanctions risk management The group has a framework in which AML, CFT and related activities and sanctions risk management are managed through adequate policies, principles, processes, practices, procedures and plans to discharge statutory duties and regulatory obligations.

The Financial Intelligence Centre Amendment Act, No 1 of 2017 (the Amendment Act) was promulgated on 2 May 2017. On 2 October 2017 the amended Money Laundering and Terrorist Financing Control (MLTFC) Regulations were announced, together with the notice of withdrawal of the exemptions. The amendments aim to improve the efficacy of anti-money-laundering and combating the financing of terrorism measures in SA. This act aims to align the country with the Financial Action Task Force (FATF) standards and recommendations, protect the SA financial system and strengthen its ability to prevent and punish financial crime.

#### Mitigating actions

#### **Financial Sector Conduct Authority**

Effective 1 April 2018, the Financial Services Board was transformed into the FSCA – a dedicated market conduct regulator for the SA financial services sector. This marks the formal implementation of the Twin Peaks Model.

There will not be a 'big bang' approach to the implementation of the FSCA mandate. Gradual changes will rather be implemented over the course of the current year, as sections of the FSRA come into operation in a phased manner.

#### Conduct of Financial Institutions Act (CoFI)

No updates have been received from Regulators regarding the publication of the CoFI Bill for consultation.

Nedbank has been proactive in responding to the changing economic environment and regulatory agenda in its approach to managing potential market conduct risks. Our business has aligned our focus on values and culture to meet these heightened requirements. Nedbank has already extensively embedded TCF and is currently broadening this through our MCCP, which is led by the group business owners.

The MCCP is based on international best practice standards. It enables the bank to identify and mitigate the risk of client detriment through the execution of financial services that deliver fair outcomes for clients. This is driven by Nedbank's interactions with clients as well as Nedbank product and service design.

Regulatory non-compliance relating to AML, CFT and sanctions continues to receive significant focus with a view to enhancing controls and management action across the lines of defence (LOD). The BaU-identified risks are driven to resolution through the relevant governance forums and business clusters. The AML, CFT and Sanctions Programme addresses specific risks identified and enhances the strategic approach to effective risk management.

Nedbank has established a FICA Programme to ensure implementation of the provisions of the Act by the 2 April 2019 deadline. Progress has been made on the transition to a risk-based approach (from current rules-based) and the ongoing evolution of risk management.

Compliance/Regulatory risk theme	Description	Mitigating actions
	•	
Protection of Personal Information Act (POPIA)	POPIA was signed into law on 26 November 2013.  The implementation of the act will provide	Nedbank is aligned with international developments and will strive to align with prescribed best practices.
illioilliation Act (POPIA)	consumers with increased confidence in the way	aligh with prescribed best practices.
	in which organisations in SA process personal	The Information Privacy Office is running a groupwide privacy initiative to
	information.	ensure that the relevant enhancements are made to demonstrate that the compliance obligations are both successfully achieved and
	Compliance with the POPIA not only instils trust	maintained.
	in consumers, but also drives an improvement of investor relations.	The privacy programme has significance at every stage of the information lifecycle and requires targeted change management in terms of the way
	Despite the appointment of the Information	in which Nedbank collects, uses, distributes, stores and ultimately
	Regulator in December 2016, an enforcement	disposes of personal information.
	date has not yet been issued. However, once	The DODIA was and the day the LIK Date Date that A to force which the
	issued, Nedbank will have one year to demonstrate compliance with POPIA.	The POPIA was modelled on the UK Data Protection Act, from which the GDPR has been derived. For this reason there is a significant overlap
	The Coneral Data Protection Regulation (CDRR)	between the principles of the POPIA and the GDPR. All deliverables from
	The General Data Protection Regulation (GDPR) was adopted by the European Parliament during	the privacy programme already cater for the GDPR-equivalen requirement. Those that are not covered are being addressed separately
	2016 and came into full effect on 25 May 2018.	through a GDPR working committee.
	The GDPR does not introduce new privacy	through a GDT it Working committee.
	requirements but merely updates and enhances	
	those that have already been in effect for a	
	number of years. The POPIA and the GDPR are	
	closely aligned, except for marked differences	
	such as the right to be forgotten introduced by	
	the European legislation, as well as data	
	portability and the penalty of 4% annual	
	turnover, which is significantly more than the R10	
	million prescribed by SA.	
	The GDPR applies to any processing of data in	
	Europe by a controller, as well as the processing	
	of personal data of subjects residing in the EU.	
	This applies even if such a controller is not	
	resident in the EU. The impact on Nedbank would	
	thus be that the GDPR must be complied with	
	when we offer any goods or services to EU	
	citizens or perform some other form of data	
	processing.	
Basel III	In December 2017 the BCBS published Basel III:	Nedbank will leverage off the IFRS 9 and Basel III implementations t
	Finalising post-crisis reforms. This sets out the	elevate risk measurement and management to an even higher level, an
	committee's finalisation of the Basel III	will continue to remain focused on changes to the National Credit Act and
	framework, which is the central element to the	any strategic implications.
	committee's response to the global financial	In response to Basel III, management continues to deliver, position and
	crisis. The key objective of the finalised reforms is	prepare the group optimally for these regulatory changes. Risk principle
	to reduce excessive variability in RWA and	have been incorporated into the group's SPT objectives, facilitating the
	restore credibility in the calculation of RWA by:	strategic direction in respect of balance sheet portfolio growth, th
	Enhancing robustness and risk sensitivity of	consumption of capital, the use of long-dated liquidity and determining
	TSAs for credit and operational risk.	the size of the levels of HQLA.
	■ Constraining use of internally modelled	
	approaches.	Nedbank continues to manage the transitional LCR requirement
	I	proactively at levels above regulatory minima. Nedbank has maintaine

Complementing the risk-weighted capital

ratio with a finalised leverage ratio and

The finalised reforms are due to be implemented from 1 January 2022, with the revised capital floor being phased in over 2022 to 2027.

robust capital floor.

proactively at levels above regulatory minima. Nedbank has maintained

the NSFR at above 100% and is compliant with the minimum regulatory

requirements that became effective on 1 January 2018.

Compliance/Regulatory risk theme	Description	Mitigating actions
Risk data aggregation and risk reporting (RDARR)	The BCBS 239, Principles for effective RDARR, was issued by the BCBS in January 2013. The principles aim to strengthen banks' risk management practices by improving their RDARR practices. It is anticipated that complying with the principles will improve the ability of banks to provide rapid and comprehensive risk data by legal entity and business line. This will ultimately enhance banks' decisionmaking processes and improve their resolvability. This has been incorporated into local bank regulation through SARB: PA directive 2/2015, which requires D-SIBs to comply with the principles from 1 January 2017.	Nedbank continues to deliver on actions towards compliance with the principles. To this end Nedbank opted for a strategic approach by not only focusing on compliance, but also on implementing a sustainable solution that will address the management of enterprise data. This gave rise to the EDP, which consists of three streams, namely:  RDARR – focused on compliance with the BCBS 239 RDARR principles.  IT infrastructure – selection and implementation of appropriate hardware and software.  Data Management Organisation (DMO) – establishment of the DMO and its related governance and data management capabilities.  Nedbank has achieved material compliance with the RDARR principles on 1 January 2017 and continues to maintain that status.
Foreign Account Tax Compliance Act (FATCA) and the Organisation for Economic Cooperation and Development's Common Reporting Standards (CRS)	FATCA and CRS require South African FIs to report all reportable financial accounts where there is a balance on a client's account and the client is either a US person or any other person that has foreign tax obligations or tax residencies.  SA FIs have to report these accounts to SARS, which in turn will report the information to each respective country's revenue authority.	The FATCA and CRS project is run and managed by the Regulatory Change Programme Office (RCPO), which affords the project the appropriate attention. Greater alignment with the AML project is taking place and learnings from the AML project are also being implemented in the FATCA and CRS project.  Currently, manual processes are used to deliver on regulatory reporting requirements due to the complexity of the system integration required and the amount of detailed data needed to submit the report to SARS successfully. Significant system changes are being scoped and discussed to ensure that potential system challenges are addressed upfront.
Occupational Health and Safety (OHS) Act	The OHS Act and its associated regulations ensure the health and safety of all persons on the premises of a business.	The focus is to ensure that the bank complies with the OHS Act (No 85 of 1993) and its regulations as well as the Compensation for Occupational Injuries and Diseases Act (No 130 of 1993) to ensure a safe and healthy environment for our employees and all stakeholders.  All employees complete the compulsory OHS training, which includes reading and acknowledging the Nedbank Group OHS Policy. In addition, Nedbank has ongoing OHS awareness campaigns, including posters, leaflets, awareness events, presentations and roadshows. Emergency procedures are planned, documented, reviewed, practised and updated accordingly to ensure preparation for all types of emergencies. These procedural practice exercises (including external stakeholder involvement) take place at all our sites biannually. Nedbank nominated and elected OHS representatives in line with the general administration regulation 6 of the OHS Act. The representatives are currently undergoing formal training. Baseline OHS risk assessments are conducted in branches and campus sites to determine OHS risk exposures in order to implement appropriate remedial and preventative measures with a view of safeguarding employees and other persons on Nedbank premises. From January 2018 to date baseline OHS risk assessments have been completed at 167 branches and five campus sites. Remediation of the gaps identified is ongoing. Section 16.2 forums were held in all nine provinces during July to empower and update section 16.2 appointees on OHS programme progress in order to enable them to execute their role effectively.

# **Business risk**

#### **Business risk definition**

Business risk is defined as the risk assumed due to potential changes in general business conditions, such as our competitive market environment, client behaviour and disruptive technological innovation. Business risk includes the impact of reputational risk but excludes long-term strategic risk.

The above definition aims to minimise the overlap with other risk types such as operational risk. It also explicitly excludes long-term strategic risk as Nedbank does not believe it should capitalise for poor strategic decisions that would have long-term impacts on the franchise, but should rather replace management responsible for them.

# Quantification of business risk capital

The business risk approach at Nedbank is divided into two parts, a topdown calculation of the group's capital requirement and a bottomup scenario-based allocation to businesses across the group.

- Topdown-sizing of the group's capital:
  - □ In this case business risk is estimated for the group as a whole, using a combination of peer data and Nedbank Group data to estimate the risk exposure at Nedbank's target confidence interval for economic capital, currently 7:10 000 (99,93%).
  - □ The peers are selected to provide relevant insights into Nedbank's business risk.
  - □ Adjustments are made for non-business risk factors such as operational risks and potential for management actions to mitigate an earnings decline, such as cost cutting.
- Bottomup allocation of business risk economic capital to businesses:
  - Allocation is based on a scenario-based approach.
  - □ The allocation of business risk economic capital is based on the relative size of changes in GOI due to scenarios identified for each business unit.

#### **Topdown calculation**

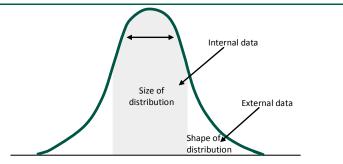


The purpose of the topdown calculation is to size, at a group level, the business risk exposure that Nedbank faces as a consolidated entity. This is done by evaluating to what extent the group's GOI (adjusted for non-business risk factors) can vary, compared with expectations in an extreme event.

While business risk can arise through changes in revenues and costs, this methodology uses revenues as the primary anchor point and accounts for costs primarily as a business risk mitigation mechanism.

The topdown calculation aims to size business-risk-induced earnings volatility at a group level, based on historic volatility observed both internally and externally, as shown in the figure below.

#### A combination of internal and external data is used in the calculations

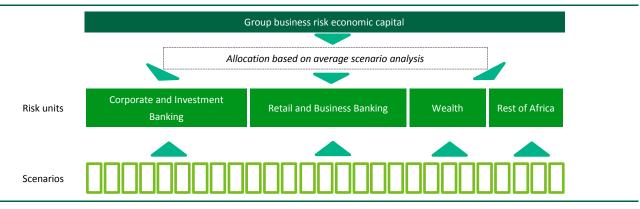


The most important methodological aspects were derived in four different stages, as follows:

- Determine the metric used to model business risk.
  - Business risk looks at changes in GOI, adjusted for non-business risk variables.
- Define the shape of the distribution of the metric (external data used).
  - Peer data is used to base the shape of distribution on significantly more data points.
  - Peers are selected to ensure comparability with Nedbank's business model. Focus is on downside risks when fitting a distribution.

- Define the size of the distribution of the metric around forecasts (internal data used).
  - Once the shape of the distribution has been determined, it needs to be parameterised to arrive at the size of the shocks at a specific confidence interval (currently 99,93%).
- Determine the metric used to model business risk.
  - Need to take into account how much influence management can have over a one-year horizon.

#### **Bottomup allocation**



A bottomup-scenario-based approach is used to allocate business risk economic capital across the individual business units, as follows:

- Identify and assess business risk scenarios per business unit.
- Estimate the profit and loss impact per business risk scenario.
- Aggregate the unweighted average of the top three scenarios per business unit to arrive at a final business risk number per business unit.
- Total business risk economic capital, calculated through the topdown approach, is then allocated to each business unit depending on the relative distribution of the average profit and loss impact per business unit.

# **Principles of scenario analysis**

To ensure comparability between various scenarios per business unit as well as across business units, the set of principles contained in the table below was used in deriving the respective business unit scenarios:

Principle		Description	
1	Relevance to Nedbank	<ul> <li>Only scenarios that will impact Nedbank should be considered.</li> <li>Overlay of scenarios to Nedbank-specific business lines/sensitivities.</li> </ul>	
2	Similar likelihood across scenarios	Scenarios should have the same probability of occurring.	
3	Clarity of transmission into profit and loss impact	<ul> <li>Scenarios should have a clear link to profit and loss changes.</li> <li>Transmission to revenue/cost impact should be identifiable and stable over time.</li> </ul>	
4	Enrichment of overall list (mutually exclusive, collectively exhaustive)	<ul><li>Scenarios should not overlap, where possible.</li><li>Scenarios should cover a range of possible events.</li></ul>	

# **Annexure A: Abbreviations**

Annexure A	A: Appreviations
Abbreviation	Definition
ABCP	Asset-backed commercial paper
AFR	Available financial resources
AFS	Available-for-sale
AIRB	Advanced Internal Ratings-based
AJTP	Activity-justified transfer pricing
Alco	Asset and Liability Committee
ALM	Asset and liability management
AMA	Advanced Measurement Approach
AML	Anti-money-laundering
ANC	African National Congress
ASF	Available stable funding
BaU	Business-as-usual
BCBS	Basel Committee on Banking Supervision
ВССС	Brand, Client and Conduct Committee
всм	Business Continuity Management
ВСР	Business Continuity Plan
BEEL	Best estimate of expected loss
BEICF	Business environment and internal control factors
BSM	Balance Sheet Management
CAPM	Capital Adequacy Projection Model
CAR	Capital adequacy ratio
ccc	Cluster Credit Committee
CCF	Credit Conversion Factor
CCP	Central counterparty
CCR	Counterparty credit risk
CE	Chief Executive
CEM	Current Exposure Method
CET1	Common equity tier 1
CFD	Centralised Funding Desk
CFO	Chief Financial Officer
CFT	Combating the financing of terrorism
CIB	Corporate and Investment Banking
CIO	Chief Information Officer
CLR	Credit loss ratio
CMF	Capital Management Framework
CMVU	Credit Model Validation Unit
COE	Cost of equity
CoFI	Conduct of Financial Institutions Act
coo	Chief Operating Officer
СРМ	Credit Portfolio Model
CRM	Credit Risk Mitigation
CRO	Chief Risk Officer
CRRMF	Cyber Resilience Risk Management Framework
CRS	Common Reporting Standards
CSIRT	Computer Security Incident Response Team
CVA	Credit valuation adjustment
DAC	Directors' Affairs Committee
DCC	Divisional Credit Committees
dEL	Downturn expected loss
DFL	Digital Fast Lane
DIS	Deposit Insurance Scheme
dLGD	Downturn loss given default
DMO	Data Management Organisation
D-SIB	Domestic systemically important bank
EAD 5-D	Exposure at default
EaR	Earnings-at-risk

Abbreviation Definition

EBA European Banking Authority
ECA Export credit agencies

ECAIs External credit assessment institutions

ECL Expected credit loss
EDP Enterprise Data Programme

EGC Enterprise Governance and Compliance
EITCO Executive Information Technology Committee

EL Expected loss/losses
ELD External loss data
EP Economic profit

ERCO Enterprisewide Risk Committee

ERMF Enterprisewide Risk Management Framework

ETI Ecobank Transnational Incorporated

ETL Extreme tail loss

EVE Economic value of equity
EWI Early-warning indicators

FATCA Foreign Account Tax Compliance Act

FCC Financial Crime Committee
FCT Foreign currency translation

FCTR Foreign currency translation reserves

FDI Foreign Direct Investment
FI Financial Institutions
FIC Financial Intelligence Centre
FIRB Foundation Internal Ratings-based

FSB Financial Services Board

FSCA Financial Sector Conduct Authority
FSRA Financial Sector Regulatory Act

FVOCI Fair value through other comprehensive income

FVTPL Fair value through profit or loss
GAC Group Audit Committee
GCC Group Credit Committee

GCPM Group Credit Portfolio Management

GCR Global Credit Rating

GCRM Group Credit Risk Monitoring

GCRMF Group Credit Risk Monitoring Framework

GDP Gross domestic product

GDPR General Data Protection Regulation

GHR Group Human Resources
GIA Group Internal Audit

GITCO Group Information Technology Committee

GMRM Group Market Risk Monitoring
GOI Gross operating income

GORC Group Operational Risk Committee

GRCMC Group Risk and Capital Management Committee

Greenhouse I Greenhouse Funding (RF) Limited

Greenhouse III Greenhouse Funding III (RF) Limited

Group Alco Group Alco and Executive Risk Committee

Group Exco Group Executive Committee

GRRC Group Reputational Risk Committee

G-SIBs Global Systemically Important Banks

GT Group Technology

GTSEC Group Transformation, Social and Ethics Committee

HQLA High-quality liquid assets

HVCRE High-volatility commercial real estate
IAA Internal Assessment Approach

 IASB
 International Accounting Standards Board

 ICAAP
 Internal Capital Adequacy Assessment Process

 IFRS
 International Financial Reporting Standards

 ILAAP
 Internal Liquidity Adequacy Assessment Process

Abbreviation Definition

ILD Internal Loss Data
IMM Internal Model Method

IOM Isle of Man

IPRE Income-producing real estate
IRB Internal Ratings-based

IRRBB Interest rate risk in the banking book

JIBAR Johannesburg Interbank Agreed Rate

JSE JSE Limited

KICL Key Issues Control Log
KRI Key risk indicators
LAC Loss-absorbing capital
LCR Liquidity coverage ratio

LEAC Large-exposures Approval Committee

LGD Loss given default LOD Lines of defence

 LPP
 Lighthouse Privacy Programme

 LRCP
 Liquidity Risk Contingency Plan

 LSC
 Liquidity Steering Committee

LTV Loan-to-value

MCCP Market Conduct and Culture Programme

ME Managed Evolution
MFC Motor Finance Corporation

MMFTP Matched maturity funds transfer pricing

MMS Money-market shortage
MRC Minimum required capital
MRM Model Risk Management

MtM Mark-to-market

NCA National Credit Act

NCOF Net cash outflow

NCWO No-creditor-worse-off

 Nedgroup Life
 Nedgroup Life Assurance Company Limited

 NedIC
 Nedgroup Insurance Company Limited

NGR Nedbank Group Rating
NII Net interest income
NIM Net interest margin
NIR Non-interest revenue
NPL Non-performing loan
NSFR Net stable funding ratio

NTR Nedbank Group Transaction Rating

nWoW New ways of working

OHS Occupational Health and Safety
OHSA Occupational Health and Safety Act

OPCOM Operational Committee
ORM Operational Risk Management

ORMF Operational Risk Management Framework
ORX Operational Riskdata eXchange Association

OSE Ordinary shareholders' equity

OTC Over-the-counter

PD Probability of default

PIPS Properties in possession

POPI Protection of Personal Information
POPIA Protection of Personal Information Act

PR Property revaluation

Precinct Funding 1 (RF) Limited

PSE Public sector entity

RAF Risk Appetite Framework

RAPM Risk-adjusted performance measurement

RBB Retail and Business Banking
RCP Regulatory Change Programme

Abbreviation	Definition
RCPO	Regulatory Change Programme Office
RCSA	Risk and control self-assessment
RDA	Risk data aggregation
RDARR	Risk Data Aggregation and Risk Reporting
RDR	Retail Distribution Review
Remco	Group Remuneration Committee
ROA	Return on assets
RoA	Rest of Africa
ROE	Return on equity
RORAC	Return on risk-adjusted capital
RP	Recovery Plan
RRC	Reputational Risk Committee
RRP	Recovery and Resolution Plan
RSF	Required Stable Funding
RWA	Risk-weighted assets
SA-CCR	Standardised Approach for counterparty credit risk
SADC	Southern African Development Community
SAM	Solvency Assessment and Management
SARB: PA	South African Reserve Bank: Prudential Authority
SBP	Share-based payment
SCP	Strategic Capital Plan
SFA	Supervisory Formula Approach
SFT	Securities financing transaction(s)
SMA	Standard Measurement Approach
SME	Small- and medium-sized enterprises
SOE	State-owned enterprises
SPT	Strategic Portfolio Tilt
SREP	Supervisory Review and Evaluation Process
SRWA	Simple Risk Weight Approach
STI	Short-term incentive
Synthesis	Synthesis Funding Limited
TCF	Treating Customers Fairly
TLAC	Total loss-absorbing capacity
TOM	Target Operating Model
TRAHRCO	Transformational Human Resources Committee
TRC	Trading Risk Committee
TSA	The Standardised Approach
TTC	Through-the-cycle
UK	United Kingdom
UL	Unexpected loss/losses
VaR	Value at risk
VUCA	Volatile, uncertain, complex and ambiguous

WIP

Work-in-progress

# Company details

#### **NEDBANK GROUP LIMITED**

Incorporated in the Republic of SA Registration number 1966/010630/06

#### Registered office

Nedbank Group Limited, Nedbank 135 Rivonia Campus, 135 Rivonia Road, Sandown, Sandton, 2196 PO Box 1144, Johannesburg, 2000

#### Transfer secretaries in SA

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#### Namibio

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#### **INSTRUMENT CODES**

#### Nedbank Group ordinary shares

JSE share code: NED NSX share code: NBK

ISIN: ZAE000004875

ADR code: NDBKY ADR CUSIP: 63975K104

# Nedbank Limited non-redeemable non-cumulative preference shares

JSE share code: NBKP

ISIN: ZAE000043667

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This announcement is available on the group's website at nedbankgroup.co.za, together with the following additional information:

- Financial results presentation to analysts.
- Link to a webcast of the presentation to analysts.

For further information please contact Nedbank Group Investor Relations at nedbankgroupir@nedbank.co.za.

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