

# Pillar 3 Risk and Capital Management Report 2016

FOR THE YEAR ENDED 31 DECEMBER

Basel III Public Disclosure Report

see money differently

**NEDBANK**

A Member of the  **OLDMUTUAL** Group

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# 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.

Postwriteoff recoveries <b>R1 157m</b> (2015: R1 137m)	Defaulted advances as a % of gross advances <b>2,72%</b> (2015: 2,53%)	Portfolio coverage <b>0,69%</b> (2015: 0,70%)	Long-term funding ratio <b>29,6%</b> (2015: 28,7%)
Trading book – <b>low risk</b>	Credit loss ratio <b>0,68%</b> (Dec 15: 0,77%)	Specific coverage <b>37,4%</b> (Dec 15: 38,0%)	Liquidity coverage ratio <b>109,3%</b> (2015: 88,5%)
IRRBB % ordinary shareholders' equity <b>1,81%</b> (2015: 1,61%) <b>well positioned</b>	Common-equity tier 1 <b>12,1%</b> (2015: 11,3%)	Total tier 1 <b>13,0%</b> (2015: 12,0%)	Loan-to-deposit-ratio <b>92,8%</b> (2015: 93,9%)
			Total capital adequacy ratio <b>15,3%</b> (2015: 14,1%)

## Enhanced Pillar 3 disclosure

In order to continue to strengthen confidence and trust in the banking system, banks are urged to place a greater emphasis on the comprehensive public disclosure of their risk and capital position and risk management processes and how these relate to key business activities.

The Financial Stability Board established the Enhanced Disclosure Task Force (EDTF) to develop principles for enhanced disclosures by institutions. The EDTF published 32 recommendations which they believe are fundamental principles that should be included in a bank's risk disclosure.

Nedbank has implemented the EDTF recommendations, where appropriate, in our endeavour to continuously enhance and drive improvement in the quality, clarity, consistency and comparability of risk disclosures, thereby allowing stakeholders to draw increased value, understanding and insight from the report. The refinement of our Pillar 3 Report is an ongoing process to align with changing regulation and leading practice.

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) revised Pillar 3 disclosure requirements. The material revisions relate primarily to the inclusion of prescribed fixed format quantitative disclosure templates, which aim to enhance the comparability of banks disclosures. The fixed format templates have been supplemented with additional disclosure, where appropriate, in order to add value to the user.

The Nedbank Group Chief Operating Officer (COO) Mfundo Nkuhlu and Chief Financial Officer (CFO) Raisibe Morathi on behalf of the board, are 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 on [nedbank.co.za](http://nedbank.co.za).

A Nedbank Group Internal Audit (GIA) review was completed, with no material issues raised.

Available financial resources: economic capital <b>131%</b> (2015: 120%)
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# Group structure and basis of Pillar 3 disclosure

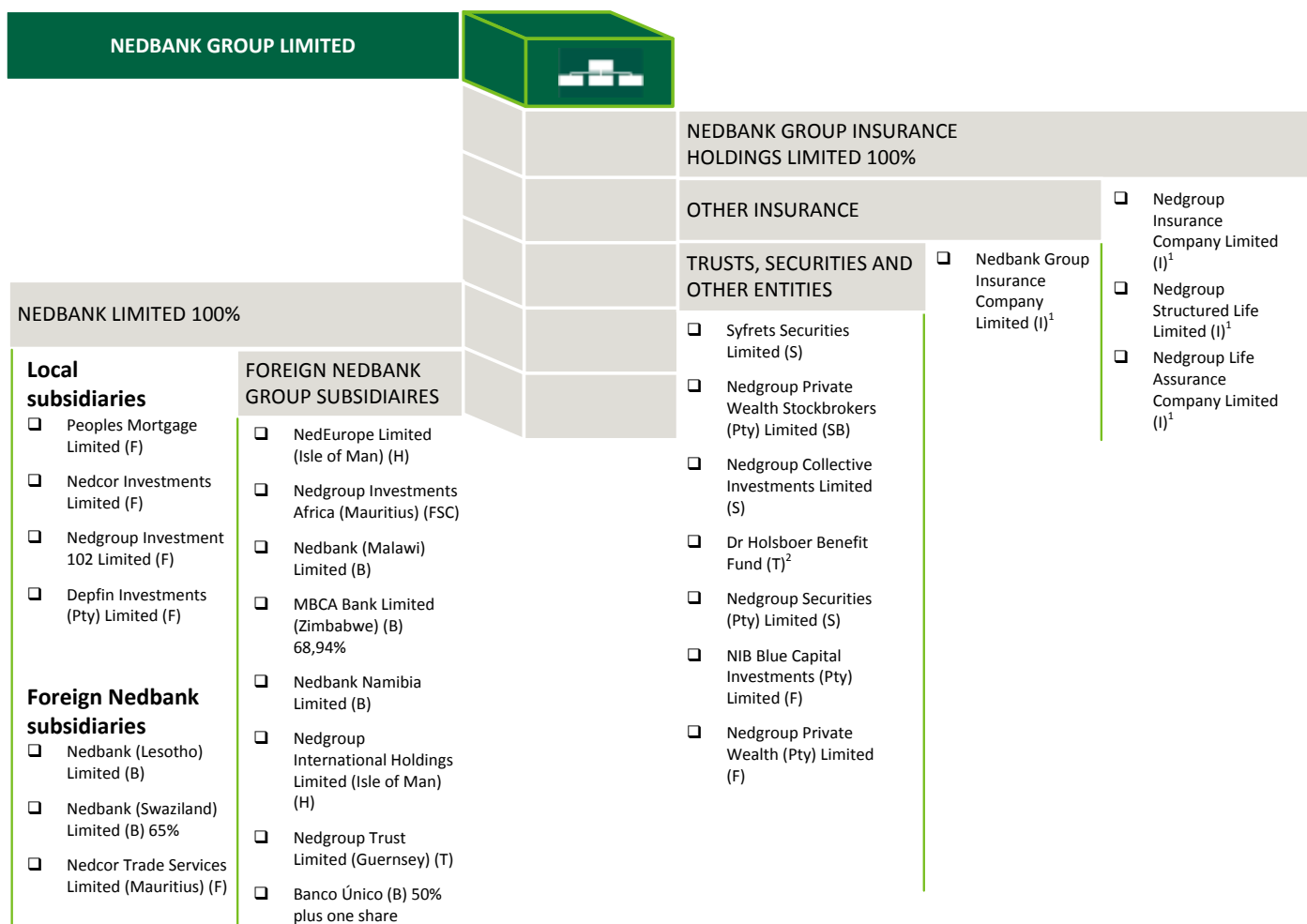
The group's comprehensive Pillar 3 and public disclosure complies with regulation 43 of the regulations relating to banks issued in terms of the Banks Act (Act No. 94 of 1990). Set out below are the key subsidiary companies of Nedbank Group. Consistent with the principle of proportionality (or materiality) contained in the regulations, this Pillar 3 Report covers Nedbank Group Limited and Nedbank Limited. The other banking subsidiary companies 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 107. 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 groups 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 SAM regime is only expected during the second half of 2017. The insurance businesses are on track with their SAM implementation, which has been embedded in the risk management frameworks, strategic initiatives and system enhancements. The businesses are currently engaged in a SAM comprehensive parallel run, during which they are required to report to the Financial Services Board (FSB) on both the current regulatory regime and the SAM regulatory regime. The approach taken by the businesses is to ensure strategic alignment of SAM by using risk management in the business decision-making framework and business planning processes through Own Risk and Solvency Assessments, which are being embedded in the existing reporting structures.

In addition, the Rest of Africa Cluster is included in the Pillar 3 report, through the group structure illustrated below. The same risk management culture, governance structures, policies and processes as the group 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 inter-company loans granted from 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.



All subsidiaries are wholly-owned, unless stated otherwise.

B: Banks

F: Financial entities

H: Holding Companies

SB: Stockbrokers

I: Insurance entities

S: Securities entities

T: Trusts

FSB: Investment Holding Company

FSC: Investment Company

<sup>1</sup> Entities outside Pillar 3 consolidation.

<sup>2</sup> Entities inside International Financial Reporting Standards (IFRS), but outside the Pillar 3 consolidation group.

## 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) prescribes regulatory consolidation and lists 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 groups capital adequacy ratio (CAR) through the application of the threshold deduction method. Refer to the table, 'Summary of regulatory qualifying capital and reserves' on page 36 for differences in the basis of consolidation for accounting and regulatory purposes.

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

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

	Percentage holding						
	Minority interest			Majority/controlling interest			
Type of entity	≤ 20%	20% and ≤ 50%		20% and ≤ 50%		> 50%	
		Other significant shareholder.	No other significant shareholder.	Aggregate of investment ≤ 10% of the bank or controlling company's CET1.	Aggregate of investment > 10% of the bank or controlling company's CET1.		
Banking, securities and other financial entities <sup>1,2</sup>	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)].	Proportionately consolidate.	Apply deduction method.	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 or controlling company's CET1. Deduct the amount in excess of 10% of CET1 against the corresponding component of capital.	Full consolidation OR financial entities with specific limitations will have to apply the deduction method.	
Insurance entities	As above.	Risk weight at 250% up to 10% of the bank or controlling company's CET1 capital. Deduct the amount in excess of 10% of CET1 against the corresponding component of capital.		Risk weight at 250% up to 10% of the bank or controlling company's CET1 capital. Deduct the amount in excess of 10% of CET1 against the corresponding component of capital.	Risk weight at 250% up to 10% of the bank or controlling company's CET1 capital. Deduct the amount in excess of 10% of CET1 against the corresponding component of capital.		
Commercial entities	Treat as equity investment. Apply 100% risk weight (TSA) or 300%/400% risk weight (IRB market based – SRWA).			Standardised Approach		Advanced Approach	
				Individual investment up to 15% of CET1, additional tier 1 and tier 2 is to be risk weighted at no less than 100%.		Individual investment up to 15% of CET1, additional tier 1 and tier 2 is to be risk-weighted in accordance with one of the available equity risk approaches [Market SRWA or Internal Model; or Probability of default (PD)/Loss given default (LGD) Approach].	
				Individual investment in excess of 15% of CET1, additional tier 1 and tier 2 is to be risk weighted at 1 250%.			
				Aggregate of investment > 60% of CET1, additional tier 1 and tier 2 the excess above 60% is to be risk weighted at 1 250%.		Individual investment in excess of 15% of CET1, additional tier 1 and tier 2 is to be risk weighted at 1 250% or risk-weighted assets (RWA) equivalent.	

<sup>1</sup> Includes regulated and unregulated entities.

<sup>2</sup> Types of activities that financial entities might be involved in include financial leasing, issuing 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 fully deducted.
- 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

Risk type	Nedbank Limited			Foreign subsidiaries	Trusts and securities entities	Other insurance entities <sup>2</sup>
	Nedbank Limited Solo <sup>1</sup>	Local subsidiaries	Foreign subsidiaries			
Credit risk	AIRB/TSA <sup>3</sup>	AIRB/TSA	TSA	TSA	TSA	N/A
Counterparty credit risk (CCR)	CEM	N/A	CEM <sup>4</sup>	CEM <sup>4</sup>	N/A	N/A
Securitisation risk	IRB	N/A	N/A	N/A	N/A	N/A
Market risk <sup>5</sup>	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>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.

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

<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 89% and TSA portion is 11% in Nedbank Limited Solo.

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

**Note:**

AIRB = Advanced Internal Ratings-based.



**L11: DIFFERENCES BETWEEN ACCOUNTING AND REGULATORY SCOPES OF CONSOLIDATION AND MAPPING OF FINANCIAL STATEMENT CATEGORIES WITH REGULATORY RISK CATEGORIES**

2016 Rm	Statement of Financial Position	Regulatory consolidation scope	Carrying values of items subject to:						Not subject to capital requirements or subject to deduction from capital
			Credit Risk Framework	Counterparty Credit Risk Framework	Securitisation Framework	Market Risk Framework	Equity Risk in the Banking Book	Other Assets <sup>1</sup>	
<b>Assets</b>									
Cash and cash equivalents	26 384	26 171	16 196			1 563			
Other short-term securities	84 679	83 801	68 874			46 625			
Derivative financial instruments	17 633	17 633		16 842		17 224			
Government and other securities	51 048	51 036	51 036			24 853			
Loans and advances	707 077	715 060	699 405	15 655	1 153	1 974			
Other assets	14 077	13 325				5		13 320	
Current taxation assets	574	217						217	
Investment securities	14 225	2 447					2 447		
Non-current assets held for sale	287	100						100	
Investments in private-equity associates, associate companies and joint arrangements	6 567	6 567						6 567	
Deferred taxation assets	494	350						350	69
Investment property	22	22						22	
Property and equipment	8 969	8 966						8 966	
Long-term employee benefit assets	5 203	5 203						1 913	3 290
Mandatory reserve deposits with central banks	18 700	18 700	18 700			217			
Intangible assets	10 083	10 089							10 083
<b>Total assets</b>	<b>966 022</b>	<b>959 687</b>	<b>854 211</b>	<b>32 497</b>	<b>1 153</b>	<b>92 461</b>	<b>2 447</b>	<b>31 455</b>	<b>13 442</b>
<b>Liabilities</b>									
Derivative financial instruments	13 296	13 296		12 179		18 692			
Amounts owed to depositors	761 542	777 753				3 523			
Other liabilities	34 667	33 116				167			
Current taxation liabilities	214								
Deferred taxation liabilities	804	769						769	24
Long-term employee benefit liabilities	3 448	3 448							
Investment contract liabilities	15 342								
Insurance contract liabilities	2 922								
Long-term debt instruments	52 076	52 076							
<b>Total liabilities</b>	<b>884 311</b>	<b>880 458</b>		<b>12 179</b>		<b>22 382</b>		<b>769</b>	<b>24</b>
<b>Total equity</b>	<b>81 711</b>	<b>79 229</b>							

**L12: MAIN SOURCES OF DIFFERENCES BETWEEN REGULATORY EXPOSURE AMOUNTS AND CARRYING VALUES IN FINANCIAL STATEMENTS**

2016 Rm	Items subject to:						
	Total	Credit Risk Framework	Securitisation Framework	Counterparty Credit Risk Framework	Market Risk Framework	Equity Risk in the Banking Book	Other Assets <sup>1</sup>
Asset carrying value amount under scope of regulatory consolidation (as per template L11)	959 687	854 211	1 153	32 497	92 461	2 447	31 455
Liabilities carrying value amount under regulatory scope of consolidation (as per template L11)	880 458			12 179	22 382		769
<b>Total net amount under regulatory scope of consolidation</b>	<b>79 229</b>	<b>854 211</b>	<b>1 153</b>	<b>20 318</b>	<b>70 079</b>	<b>2 447</b>	<b>30 686</b>
Off-balance sheet amounts	197 435	197 435	675	6 990			
Differences in valuations	(89 126)	(100 349)		11 223			
Differences due to different netting rules, other than those already included in row 2	177 563	175 866		2 487			(790)
Differences due to consideration of provisions	7 203	7 203					
Differences due to prudential filters							
<b>Exposure amounts considered for regulatory purposes</b>	<b>181 024</b>	<b>968 926</b>	<b>1 828</b>	<b>13 598</b>	<b>70 079</b>	<b>2 447</b>	<b>31 746</b>

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

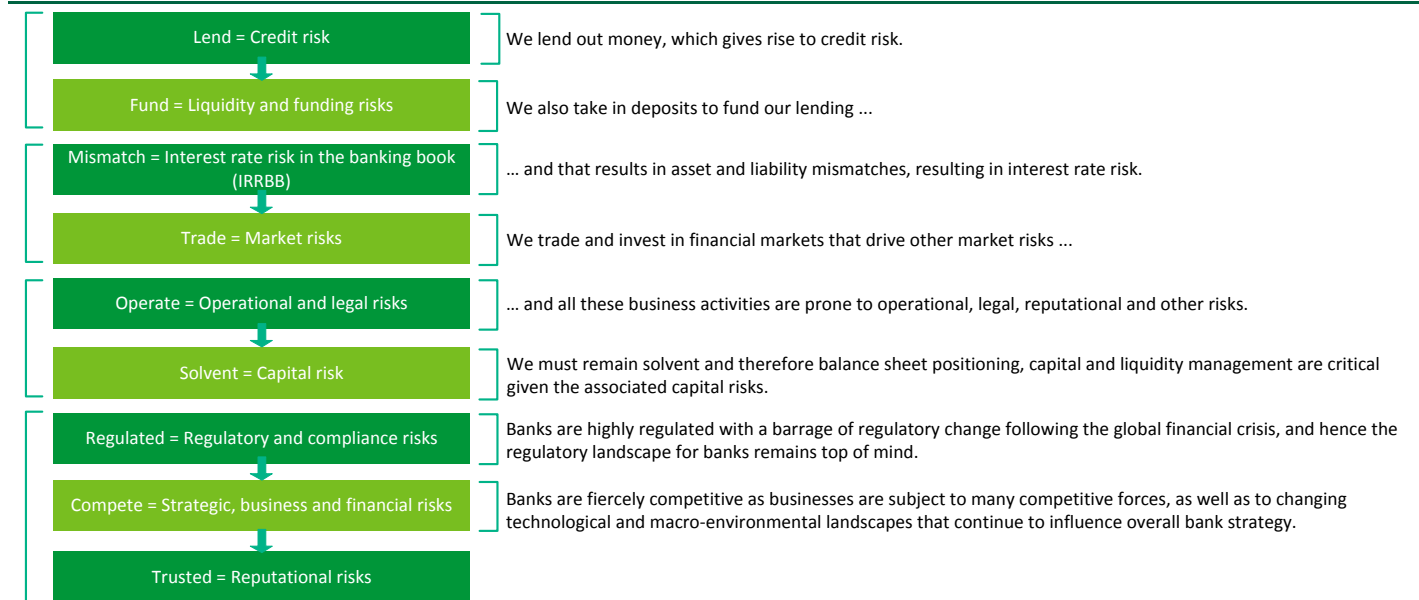
# Risk governance and culture

## Worldclass risk management

The success of a bank lies in its ability to effectively manage risk, while creating value for its stakeholders. Nedbank has embedded a mature culture of risk management that understands, proactively identifies and effectively prices for risk.

Nedbank has a sound risk culture and robust ERMF. The world has fundamentally changed and to achieve our vision and 2020 targets on a sustainable basis, risk management must and has become a competitive differentiator for Nedbank.

### Risk origins



The volatile, uncertain, complex and ambiguous (VUCA) environment has become the new normal operating atmosphere amidst expansive geo-political risk. In light of this ever changing environment, Nedbank continues managing risk as a threat, uncertainty or opportunity, whilst embedding 'worldclass risk management' as one of its deep green aspirations.

The 'accelerated change' of the operating environment has in Nedbank's view, created four new additional focus risks, on top of the historical but relevant key risks of credit, market, operational and liquidity.

### Nedbank's major risks

Basel I Basel II	Credit risk <ul style="list-style-type: none"><li>AIRB</li></ul>	Market risk	Operational risk <ul style="list-style-type: none"><li>AMA</li></ul>	
Basel III	<ul style="list-style-type: none"><li>IRB proposals</li><li>Capital floors</li></ul>	<ul style="list-style-type: none"><li>Fundamental review of the trading book (FRTB)</li><li>Interest rate risk in the banking book (IRRBB)</li><li>Market liquidity risks</li></ul>	<ul style="list-style-type: none"><li>Data - Risk Data Aggregation and Risk Reporting (RDARR)</li></ul>	
+				
Global financial crisis 3Cs Basel III	Credit <ul style="list-style-type: none"><li>SPT</li><li>Credit loss ratio (CLR) versus net interest margin(NIM)</li><li>IFRS 9</li></ul>	Capital <ul style="list-style-type: none"><li>CET1 ratio</li><li>Quality</li><li>RWA and capital floors</li></ul>	Cash (Liquidity risk) <ul style="list-style-type: none"><li>Liquidity coverage ratio (LCR)</li><li>Net stable funding ratio (NSFR)</li></ul>	
+				
The new normal 4Cs	Change <ul style="list-style-type: none"><li>Accelerated change</li><li>Regulatory change</li><li>Managed separation</li><li>Geo-political risks</li></ul>	Criminality <ul style="list-style-type: none"><li>Cyber</li><li>Anti-money laundering (AML)/combating the financing of terrorism (CFT)</li><li>Corruption</li><li>Fraud</li></ul>	Conduct and culture <ul style="list-style-type: none"><li>Trust</li><li>Values and behaviour</li><li>Regulated</li></ul>	Client-centricity <ul style="list-style-type: none"><li>Consumerism</li><li>KYC</li><li>Competition/ accelerated change</li><li>Digital revolution</li></ul>





Nedbank's approach to managing and governing risk has been and continues to be embedded in the group's ERMF. The risk management function, as embedded across the group, is fully described therein. It sets out the group's risk universe and major risk classifications, and assigns board and executive responsibility thereto. The organisation has placed a strong reliance on this risk governance framework.

In response to evolving, emerging risk trends, a changing business environment and the significant regulatory change and developments, certain risk categories are being accorded more or less prominence dependant on the current risk environment.

- Three Lines of Defence Model (evolving in line with King IV)
  - Following Basel recommendations, Nedbank is in the process of shifting from the three lines of defence model to what's referred to as 'the four lines of defence'.
  - The revised model clearly articulates responsibility and accountability based on the role that an individual/team plays as opposed to where the individual is structurally located within the organisational hierarchy.
  - Combined assurance, will also be rolled out in 2017, (with an emphasis on the ERMF risk types), and creates a designated risk owner per risk type within the organisation. This will ensure further accountability as well as a combined view across all lines of defence in terms of risk reporting.
- Frameworks, Charters (board, exco and ERCO) and Policies (level 3 risk policies)
  - A review and development of individual risk frameworks (for existing and new risk types) with risk owners and stakeholders has progressed well in 2016, as Nedbank continues to proactively manage the risk environment.
  - Policies undergo annual reviews and are tailored to suit the Nedbank environment.
    - Policy owners ensure that the policy meets the requirements of all current regulation, is relevant to meet Nedbank's risk with objectives; and has a process that gives effect to the requirements of the policy.
- Dedicated board committees across Nedbank's first line of defence further augment and entrench the ERMF. The following board committees exist within Nedbank:
  - Group Audit Committee.
  - Group Credit Committee (GCC).
  - Large Exposures Approval Committee (LEAC).
  - Group Risk and Capital Management Committee (GRCMC).
  - Group Information Technology Committee.
  - Director's Affairs Committee.
  - Related Party Transactions Committee.
  - Transformation, Social and Ethics Committee.
  - Group Remuneration Committee.

## RISK ESCALATION

Escalation criteria have been formalised and significant risk issues and/or limit breaches are raised and included in all relevant forum and committee meeting packs, which is a key feature of the ERMF and risk reporting across Nedbank Group. The process of corporate governance, including the risk management process, as contemplated in regulation 39 of the regulations relating to banks issued in terms of the Banks Act (Act No. 94 of 1990) of the Banks Act, is assessed annually against the existing internal control environment. Similarly, an assessment of whether the bank can continue as a going concern, as required in terms of regulation 40 of the regulations relating to banks issued in terms of the Banks Act (Act No. 94 of 1990), is carried out with due regard to governance, risk management and long-term planning of the banking group.

## RISK PROFILES

- Within each ERCO, residual risk profiles are reflective of the risk universe applicable to the entity, taking into account various sources of risk identification namely; annual strategy and business planning process, issues raised via management meetings and committee structures, guidance obtained from best practice risk frameworks and issues raised by Internal/External Audit.
  - Residual risk profiles are also included for review by the GRCMC. These provide an overall view of the residual risk profile of the organisation.
  - In addition, the group's key issues control log is regularly reviewed and updated, ensuring that the bank at all times has a view of the key issues and risks affecting it at any given point in time.

## OUR KEY RISKS AND MITIGATION ACTIONS

The organisation maintains a list of Top 10 risks that is tabled at the Nedbank board, regularly revised with any developments and included in the Risk Strategy and Risk Plan, as depicted below:

Top 10 risks	Risk	Mitigating Factors
Strategic and execution risk	Fundamental shifts in both the financial services landscape and technology mean that banks are now, more than ever, expected to be innovative, agile and mobile. There is a high execution risk in an attempt to shift complex operations fundamentally to ensure the group remains relevant and continuously adapts to the operational environment. There is also a risk in respect of Nedbank Group's capacity to execute the cultural change required and the timelines within which to achieve our desired strategy.	<ul style="list-style-type: none"> <li>■ A comprehensive 2017–2020 Group Business Plan, including a Risk Plan, ensures that our strategy is adopted, taking full account of both upside and downside risk.</li> <li>■ Execution is tracked monthly through internal reporting and exco will ensure focus on the myriad of changes being implemented.</li> <li>■ The group's strategic enablers aim to mitigate implementation risks by ensuring that appropriate actions are put in place.</li> </ul>
Business risk – (macro, market and geo-political risk)	The operating environment has become exceedingly challenging, both locally and internationally, with the possibility of a sovereign credit rating downgrade for SA. Conditions in the rest of Africa are likely to remain challenging, particularly in Nigeria. Although the group's exposure is relatively small, we continue to monitor the risks around our shareholding in ETI and the implications for us.	<ul style="list-style-type: none"> <li>■ Nedbank Group has taken proactive steps in positioning for adverse business conditions in our business plans in case of an SA sovereign credit rating downgrade.</li> <li>■ In addition, existing risk management structures such as our ERMF, Recovery Plan (RP) and stress and scenario testing are constantly reviewed and enhanced to ensure that current and potential business environments are considered.</li> <li>■ The group's strong balance sheet, reflected in capital, liquidity and provisioning, provides a significant buffer against downside risk, while judicious lending has lowered our risk profile.</li> </ul>
Regulatory and compliance risks	Regulatory and compliance requirements applicable to banks are rapidly increasing, hence the implementation and tight timelines for compliance are seen as a top 10 risk.	<ul style="list-style-type: none"> <li>■ Nedbank Group's response to the increasing regulatory and compliance requirements is a formal R3bn Regulatory Change Programme that seeks to leverage the implementation of regulatory and compliance requirements as a competitive differentiator by ensuring that the business case and client experience are incorporated efficiently in the fulfilment of regulatory requirements.</li> </ul>
Conduct and culture risks	SA has not been exempt from the global shift in increasing consumer protection legislation after the global financial crisis. The demand for increased consumer protection in financial services follows the market abuse cases and fines levied against several large, notable institutions in the world. In the SA context, Treating Customers Fairly (TCF) has evolved and is now treated as a full-blown conduct risk with the advent of the Market Conduct Framework for SA (Twin Peaks).	<ul style="list-style-type: none"> <li>■ Nedbank has a formal conduct programme in place, with the first phase, focused on TCF to be closed out in early 2017. Accountabilities for the oversight of TCF are allocated to senior management and the board, the Brand, Client and Conduct Committee and the Transformation, Social and Ethics Committee, given their focus on client and conduct-related matters.</li> <li>■ The second phase of the market conduct project includes increased focus on culture, conduct risk assessments within business models, and a review of strategies, incentives and remuneration against market conduct principles.</li> <li>■ In addition, the organisation adopts a zero tolerance policy towards anti-competitive behaviour. Mitigating factors in ensuring ethical and compliant business practice, is driven by ongoing competition law training to employees and executives and the reviewing of third party agreements from a competition law perspective, amongst others.</li> </ul>
Financial crime risk	Financial crime has increased due to the challenging macro and political environments and the complexity of monitoring digital activity. Heightened cyber-risks/exposure and information security risks are exacerbated by the digital revolution. In addition, the Financial Intelligence Centre Amendment Act will ensure that AML, CFT and sanctions shift from pure compliance to a risk-based approach.	<ul style="list-style-type: none"> <li>■ Financial crime risk management has been elevated in Nedbank's ERMF, especially AML, CFT and sanctions and cyber-risk. Fraud, bribery and corruption frameworks have also been developed and an integrated financial crime risk management strategy is currently being led by the Chief Risk Officer (CRO) and overseen by the board.</li> <li>■ 2016 witnessed a significant enhancement in Nedbank's journey from cybersecurity to cyber-resilience. This commenced with a gap analysis and closure exercise, the development of a board-approved Cyber-resilience Risk Management Framework, risk assessment exercises across the organisation and increased cybersecurity awareness and education for staff across the organisation.</li> <li>■ In addition, Nedbank has commenced with the development of a Risk Intelligence Centre, which will provide an enterprisewide repository for risk-adverse information that will act as an early-warning risk intelligence system to the organisation.</li> </ul>
Reputational risk (and association)	Reputational risk spilling over from the various other risk categories have increased. The general sentiment towards the financial industry has deteriorated in recent times. This, together with factors such as heightened consumerism, the political environment, conduct risk and social media, has elevated the need to focus more on reputational risk management.	<ul style="list-style-type: none"> <li>■ Reputation risk focus has been elevated in our risk plans. The Reputational Risk Committee (RRC) and the governance of reputational risk were refreshed in 2016. In addition, Nedbank has a dedicated social media team that monitors and manages its social media presence.</li> <li>■ The Nedbank Group has experienced Investor Relations and communications teams that proactively engage with the investment community and financial media.</li> </ul>

Top 10 risks	Risk	Mitigating Factors
Market risk	Increased market volatility currently exists in financial markets following events such as Brexit, the USA presidential elections and SA political instability. As a result, market liquidity risk is heightened, with demand outweighing supply and market structure/participant uncertainty and/or possible disruption.	<ul style="list-style-type: none"> <li>The business and risk plans focused on strengthening the trading markets environment, and we continue to assess the impact of the Fundamental Review of the Trading Book (FRTB) on the bank's trading business.</li> <li>The group continues to manage our trading portfolio actively against the backdrop of a volatile local and international trading environment within the risk appetite of the bank.</li> <li>At the request of the board, Nedbank conducted periodic stress tests throughout 2016 in preparation for the potential risk of a SA credit ratings downgrade and is in a resilient position to manage and successfully navigate a sovereign credit ratings downgrade, should this arise.</li> </ul>
Credit risk	Credit risk is heightened as a consequence to the challenging macroeconomic, political and high-inflation environment as well as the unemployment/job situation, given the historically low credit loss ratios, particularly in our retail secured-lending portfolios. This risk is increased by the effect of a potential sovereign credit rating downgrade.	<ul style="list-style-type: none"> <li>Nedbank has displayed excellent credit risk management throughout the global financial crisis and continues to do so with strategic portfolio tilt as a key strategic principle. Historically we have low credit loss ratios, particularly in our retail secured-lending and commercial property finance portfolios.</li> <li>Strategic tilting of the various credit portfolios is impacting positively on the sound credit book profile.</li> <li>The impact of IFRS 9 is expected to result in a transitional increase in balance sheet provisions in line with the requirements of the standard – this is not anticipated to have a significant impact on our capital adequacy levels.</li> </ul>
Balance sheet risks – structure and growth	In an uncertain world regulators require banks to maintain healthy capital levels. The group's target is to maintain a tier 1 capital ratio well above our medium-to-long-term target of > 12% (tier1 ratio in 2016: 13,0%). The net stable funding ratio requires 100% compliance by 2018 and the liquidity coverage ratio 100% by 2019. Credit and operational risk methodology changes and proposed 'capital floors' based on standardised approaches significantly increase risk-weighted assets (RWA) and capital requirements – albeit that there is significant pushback by the European Banking Authorities and industry players. Additionally, the Basel IV implications appear adverse if the BCBS's proposals are finalised as they stand.	<ul style="list-style-type: none"> <li>The group plans to increase our capital ratios over time as a result of an expectation that frontline businesses will organically generate capital over this period and as we explore further RWA optimisation opportunities. In addition, anticipated capital issuances will also ensure that target levels are met.</li> <li>Nedbank Group had an average long-term funding ratio of 29,6% and an average LCR ratio of 109,3% in the fourth quarter, exceeding the 2016 requirement of 70%.</li> <li>Taking cognisance of the finalised BCBS's NSFR standard and the directive issued by SARB, Nedbank is already compliant with the minimum regulatory requirement that becomes effective on 1 January 2018. The key focus areas relating to the NSFR now centre on finalising a number of small interpretational matters and ensuring that compliance is achieved within the context of ongoing balance sheet optimisation.</li> </ul>
Operational risk (including IT risk) and Data	Basic operational risk has increased due to the pervasive challenging macro-environment, with the technological revolution, increase in IT risk and the advent of big data.	<ul style="list-style-type: none"> <li>Operationally, Nedbank has embarked on a Managed Evolution programme to streamline data, systems and operations.</li> <li>Our IT system stability was maintained at 99,89%.</li> <li>Operational losses remained well within operational risk appetite ratios, considering that the operating environment consists of 32 401 employees, 992 software applications, 14 000 business processes, 100 outsourcing service providers and 322 critical third-party service providers.</li> <li>An operating-model review is also underway to ensure organisational structures cater effectively and efficiently for the constantly changing environment.</li> </ul>

## RISK STRATEGY

A formalised group strategy and business planning process takes place annually. A component thereof is the Risk Strategy, the development of which is led by the CRO in conjunction with Balance Sheet Management (BSM) and business clusters.

Our updated 2017–2020 risk plan has been prepared to accelerate transformation of risk management, compliance and regulation strategically across Nedbank, and successfully and sustainably implement the abnormal Regulatory Change Agenda, differentiating us from our competitors.

## REGULATORY CHANGE

Nedbank is leveraging risk management and the regulatory change agenda to be a strategic and competitive differentiator.

The group is implementing regulatory change, underpinned by a comprehensive Regulatory Change Programme, and is using the significant change opportunity to differentiate against peers and truly deliver a worldclass risk, compliance and regulatory environment.

We have an integrated, strategic response to the high execution risk and unprecedented regulatory change agenda which will facilitate our differentiation.

The impact of regulatory change remains extensive, including costs of R3bn associated with the Regulatory Change Programme to remedy AML control deficiencies and the creation of sustainable solutions for other key regulatory programmes.

## RISK APPETITE

Nedbank has cultivated a strong risk culture and embedded a prudent and conservative risk appetite, focussed on the basics and core activities of banking and other financial services.

The group's risk appetite is prudent and appropriately conservative, but remains enabling for our businesses, promoting competitive but appropriate growth and returns. This remains the case for the 2017–2020 Group Business Plan, providing our business with 'freedom within agreed and acceptable boundaries'.

The current and forecasted business plans by the clusters to achieve the group's vision, are well supported by the current risk appetite framework, with additional capacity to enable further growth with corresponding risk taking and capital consumption.

Dedicated board and exco sub-committees continuously track risk appetite metrics, per risk type, against buffers and thresholds, resulting in risk management strategies being accordingly formulated and implemented.

## RISK CULTURE

Nedbank Group has a strong risk culture. This is achieved through following best practice enterprisewide risk management, a strong 'tone from the top' from the CE, top management and the board, and ongoing risk leadership from the CRO.

The approach adopted aligns strategy, policies, people, processes, technology, and business intelligence to measure, evaluate, manage and optimise the opportunities, threats, and uncertainties that Nedbank faces daily as a large financial institution.

In this way, the group is able to maximise sustainable shareholder value within its clearly defined risk appetite.

Nedbank has adopted the strategic enabler of 'accelerated change'. Accelerated change leads to accelerated risk in a VUCA environment (as described above) replete with the digital revolution, increasing regulatory change, Old Mutual managed separation, and the target operating model review.

Ultimately, this presents the opportunity for Nedbank to run risk as a business by:

- Seeing risk as strategic.
- Providing advice, guidance and stakeholder satisfaction.
- Thinking 'out the box', forward - looking/proactive not just reactive, and adding value.
- Applying efficient and effective risk management.
- Providing assurance of effective risk management.
- Moving from risk ambassadors to risk entrepreneurs.
- Aspiring to high performance.
- Being successful change agents.

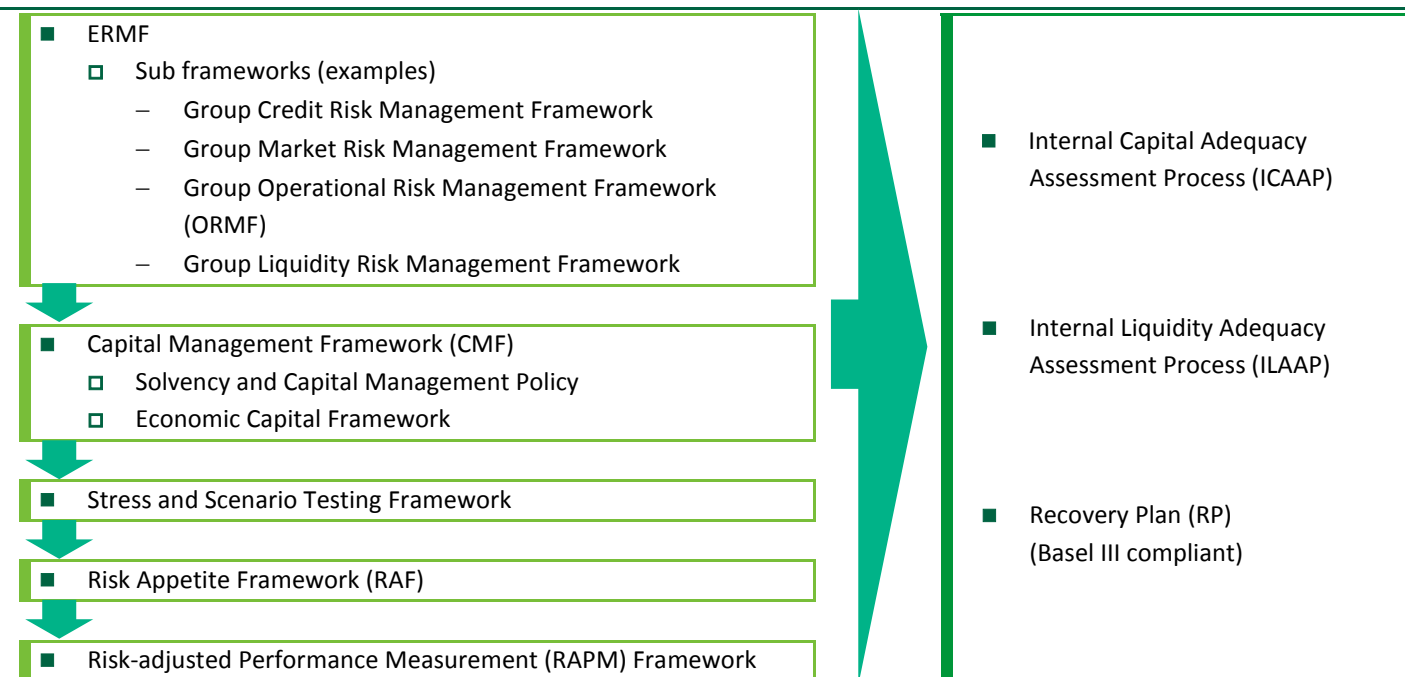
Risk management and the risk profile of Nedbank remains in excellent shape and was vigorously 'tested' for effectiveness amidst the worsened VUCA macro, Nenegate, BREXIT, SA's State Capture, social and political environments, and high pressure/demands of the Regulatory Change Agenda.

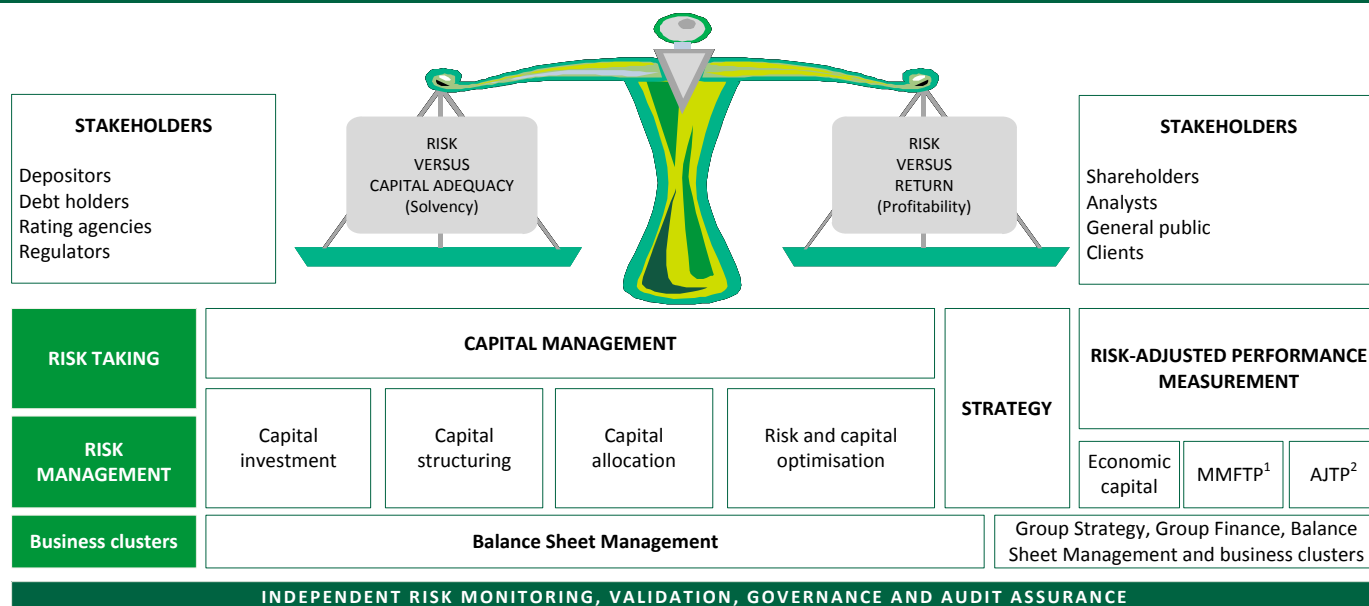
Nedbank is well positioned for the adverse, stressed environment, and potentially a much worse, high/severe stress scenario for a SA sovereign ratings downgrade as presented to the board in 2016 and updated in the 2017–2020 Group Business Plan.

## 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





<sup>1</sup> Matched maturity funds transfer pricing.

<sup>2</sup> Activity-justified 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.

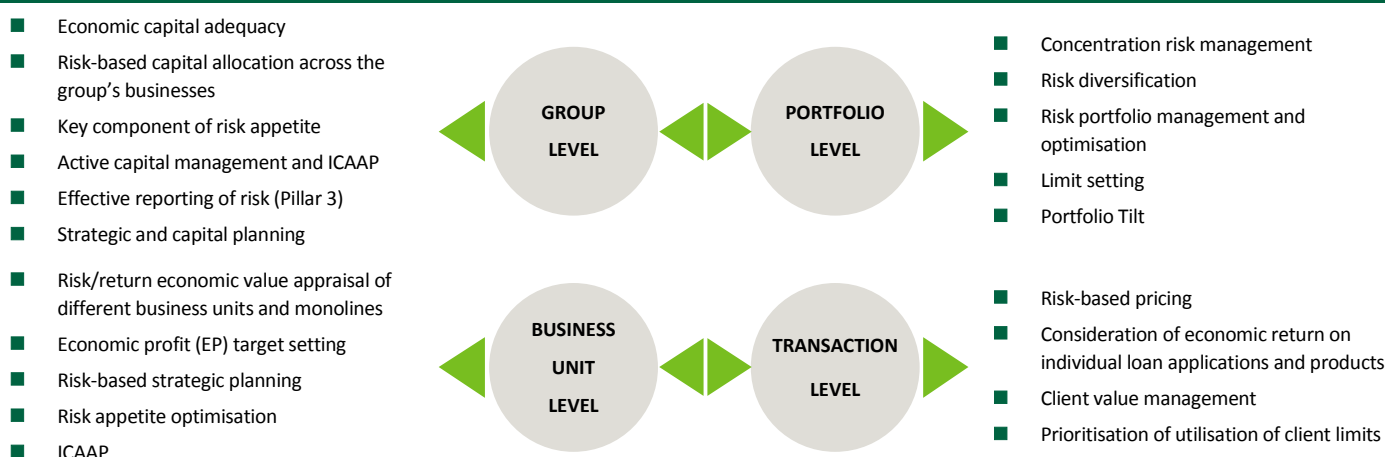
All Nedbank Group's quantifiable risks across the 17 key risks of the ERMF are also captured in our Economic Capital Framework, where they are appropriately quantified and capitalised.

Economic capital is a sophisticated, consistent measurement and comparison of risk across business units, risk types and individual products or transactions. This enables a focus on both downside risk (risk protection), upside potential (earnings growth) and shareholder value-add. Nedbank assesses the internal requirements for capital using its proprietary economic capital methodology.

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

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

#### Economic capital use across Nedbank Group



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/Solvency Assessment and Management (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 return on equity (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 (via capital allocation)

$$EP = \text{CAPITAL} \times (\text{RORAC} - \text{cost of capital})$$

Robust measure of risk,  
based on Basel III

Economic  
ROE

Shareholder  
requirements

EP is a combination of familiar metrics that enables trade-off between:

- risk and return;
- growth and profitability; and
- shareholder value creation.

Currently EP and RORAC are used interchangeably as the primary measure for performance measurement 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.

Globally, following the financial crisis, there has been a move towards using through-the-cycle (TTC) risk measures of return that provide a longer-term view and appropriate incentivisation of reward.

EP R	=	IFRS EARNINGS (OR ALTERNATIVELY RISK ADJUSTED PROFIT) – HURDLE RATE X ECONOMIC CAPITAL
■		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 that RORAC provides.

RORAC %	=	[IFRS EARNINGS (INTERNAL ROE) + CAPITAL BENEFIT] ÷ ECONOMIC 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 EP provides.

The primary performance indicator is EP driven off risk-based capital.

In line with Basel III and the Banks Act, a best practice ICAAP is embedded in Nedbank Group. It is an integral component of the group's ERMF, CMF (see diagram on page 14), 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 includes one of 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 process is to ensure that the framework remains sound in terms of measuring, monitoring, managing and mitigating liquidity risk, taking cognisance of best practise and regulatory developments. Further detail regarding the framework is discussed in the Liquidity Risk section.

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

#### 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 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 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 group's capital, liquidity and stress and scenario testing policies and procedures.

In August 2015 the National Treasury, South African Reserve Bank (SARB) and the Financial Services Board (FSB) released for comment a white paper titled 'Strengthening SA's Resolution Framework for Financial Institutions'. This paper will form the basis of a new Special Resolution Bill that will facilitate the resolution of a financial institution. Nedbank's RP has been appropriately enhanced for this white paper and will evolve as this bill is finalised and enacted by 2017.

Further information is discussed in the Recovery Plan Overview section.

Nedbank Group has a comprehensive Stress and Scenario Testing Framework as described from page 21, which is used, inter alia, to stress its base-case projections in order 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.

## **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 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 are included in performance scorecards across the group. Economic capital and EP are comprehensively in use across the group, embedded within businesses on a day-to-day basis and in performance measurement and reward schemes. This RAPM has been applied across the group for many years now 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 or 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 2016 Remuneration Report and the Remuneration section within the 2016 Integrated Report, which can be found at [nedbank.co.za](http://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.

# 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 Group Executive Committee (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 quantitative metrics include earnings-at-risk (EaR) (or earnings volatility) and, related to this, the chance of experiencing a loss, the chance of regulatory insolvency and economic capital adequacy. Earnings volatility is the level of potential deviation from expected financial performance that the group is prepared to sustain at relevant points on its risk profile. It is established with reference to the strategic objectives and business plans of the group, including the achievement of financial targets, payment of dividends, funding of capital growth and maintenance of target capital ratios. These measures, together with the CET1 ratio, total RWA to total assets, Basel III leverage ratio, LCR and CLR comprise the group's core risk appetite metrics.

A large variety of further risk appetite metrics with targets, triggers, mandates and guidelines are in place for all the financial risks to enable monitoring of the group's profile against risk appetite [eg credit, market, asset and liability management (ALM) and concentration risks]. The suite of base-case risk appetite metrics are incorporated into the business plans at both group and business cluster levels. Stressed (extreme event) risk appetite limits for the point-in-time (PIT) risk appetite metrics are in place and are linked to Nedbank Group's stress and scenario testing programme.

Credit risk and investment risk appetite metrics and targets, as relevant to the approved business activities; have been cascaded down from group level for each business cluster and major business units. The relevant operational risk appetite metrics have also been cascaded down to the business cluster level.

Concentration risk appetite targets have been set for areas in Nedbank with exposures that have 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 three lines of defence (refer to page 10 for details). A key component of the ERMF is a comprehensive set of board-approved risk policies and procedures, which are updated annually. The coordination and maintenance of this formal process rests with the head of Enterprisewide Risk Management, who reports directly to the CRO.

Nedbank Group's core risk appetite is defined as per the table on the following page.

## NEDBANK GROUP CORE RISK APPETITE METRICS

Group metrics	Definition	Measurement methodology	Current target	Target achieved as at December 2016
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%	✓
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	✓
CLR	Level of actual credit losses in Nedbank Group's credit portfolios.	Measured as the ratio of the annual income statement impairment charge and average gross loans and advances.	0,60% – 1,00%	✓
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	✓
CET1 ratio	Nedbank Group adequately capitalised from a regulatory perspective.	Measured as the ratio of CET1 capital and total RWA.	10,5% – 12,5%	✓
Total RWA to total assets	The average risk profile (risk weight) of Nedbank Group's assets.	Measured as the ratio of total RWA and total assets.	50% – 59%	✓
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	✓
Liquidity coverage ratio	The extent to which high-quality liquid assets (HQLA) cover total net cash outflows over a 30-day period.	Measured as the ratio of HQLA and total net cash outflows over the next 30 calendar days. Ratio is based on Nedbank Limited's balance sheet as high level of liquid assets in foreign subsidiaries typically yields higher ratios at a Nedbank Group level.	> 80% (for 2016, future increases in line with phasing-in of Basel III)	✓

Nedbank Group's RAF and modelling of the group level metrics are integrated with the economic capital model and the ERMF. The two measures, EaR and economic capital, are methodologically very similar and differ primarily in the confidence level used. Both economic capital and EaR are calculated at granular levels and are key components of Nedbank Group's RAF and RAPM system (ie for RORAC and EP measures).

Nedbank Group has a cascading system of risk appetite targets and limits at all levels of the group and for all financial risks, which is a core component of the implementation of the RAF. The size of the various targets and limits is a direct reflection of the board's risk appetite, given the business cycle, market environment, business plans and strategy, and capital planning.

## NEDBANK GROUP RISK APPETITE

%	TTC targets
<b>Core risk appetite metrics</b>	
EaR (one-year forward looking)	< 80
Chance of a loss (1-in-N chance in the next year)	> 15
Chance of regulatory insolvency (1-in-N chance in the next year)	> 50
CLR	0,60 – 1,00
AFR/economic capital at 99,93% confidence interval (A target rating)	> 130
CET1 ratio	10,5 – 12,5
Total RWA:total assets	50 – 59
Leverage ratio (including unappropriated profits)	< 20 times
LCR	> 80
<b>Credit risk profile</b>	
Credit RWA:loans and advances	52 – 58
Properties in possession (PiPs):loans and advances	< 0,1
Average PD – performing book (TTC)	< 3
Average LGD – performing book (TTC)	18 – 24
Average EL – performing book (TTC)	0,5 – 0,8
Non-performing loan (NPL) ratio	< 3,5
Exposure at default (EAD):exposure	< 120

%	TTC targets
<b>CCR (derivatives) profile</b>	
CCR EAD:total EAD	< 2
CCR economic capital:total economic capital	< 1
<b>Securitisation credit risk profile</b>	
Securitisation RWA:total RWA	< 5
<b>Trading market risk profile</b>	
Value at risk (VaR) (99%, three-day), (Rm)	< 120
Stress trigger (Rm)	< 830
Economic capital:total economic capital	< 3
<b>Equity (investment) risk profile</b>	
Exposure:total assets	< 2
Economic capital:total economic capital	< 10
<b>ALM risk profile – liquidity</b>	
Short-term (0 to 31 days) funding:total funding	< 55
Cumulative short- and medium-term (0 to 180 days) funding:total funding	< 70
Long-term (> 180 days) funding:total funding	> 30
Contractual maturity mismatch (0 to 31 days):total funding	< 38
Liquidity stress event (minimum survival period in days)	> 38
Net interbank reliance:total funding	< 1,5
<b>ALM risk profile –IRRBB</b>	
Nedbank Group – net interest income (NII) sensitivity:equity	< 2,25
Nedbank Group – NII sensitivity (25 bps shift in call rates):equity	< 1
Nedbank Limited – NII sensitivity:equity	< 2,5
Nedbank Limited – NII sensitivity (25 bps shift in call rates):equity	< 1
Nedbank Limited – Economic value of equity (EVE) sensitivity:equity	< 2
Nedbank Limited – Mark-to-market (MtM) Sensitivity:25 bps shift between bond and swap curves (Rm) <sup>1</sup>	< 215
Nedbank Limited – MtM Sensitivity:100 bps parallel shift (Rm) <sup>1</sup>	< 150
<b>Total insurance risk profile</b>	
EaR	< 40
<b>Long-term insurance risk profile</b>	
Net claims ratio <sup>2</sup>	< 50
Capital at risk (required capital) <sup>3</sup>	> 1,5
Economic capital ratio <sup>3</sup>	> 1,0
<b>Short-term insurance risk profile</b>	
Net claims ratio <sup>2</sup>	< 75
Capital at risk (required capital) <sup>3</sup>	> 1,3
Economic capital ratio <sup>3</sup>	> 1,0
<b>Asset management risk profile</b>	
Asset management economic capital:total Nedbank Wealth economic capital	< 25
<b>Insurance investment risk profile</b>	
Equity exposure:total shareholders' investment	< 10
<b>Operational risk profile</b>	
Operational risk loss: gross operating income (GOI)	< 1,25
Internal fraud loss:GOI	< 0,1
External fraud loss:GOI	< 0,475
Client, products and business practices:GOI	< 0,3
Execution, delivery and process management (EDPM):GOI	< 0,525
OpVaR:GOI	< 10

<sup>1</sup> Applicable to liquid asset, senior unsecured debt and subordinated debt portfolio.

<sup>2</sup> % of gross premium, net of re-insurance.

<sup>3</sup> Targets presented as ratios and not percentages.

Nedbank Group has developed and embedded a prudent and conservative risk appetite, focused on its core activities. This is illustrated by reference to the following:

- Reasonable credit concentration risk levels.
  - Large individual or single-name exposure risk is low as shown on page 109.
  - The high contribution from loans and advances originated in SA (93,5%) 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 111.
  - Nedbank Group's concentration in total mortgage exposure increased from 40,6% in June 2016 to 41,3% in December 2016, with the increase mainly from the commercial mortgages book in line with growth plans. This level remains high though still in line with the other big three SA banks.
- Low level of securitisation exposure at approximately 0,22% of total RWA.
- Low leverage ratio under Basel III, which includes off-balance-sheet exposure, at 15,3 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 selective asset origination and disciplined risk management is further evidenced by the CLR which remains at the lower end of the target range at 0,68% (2015: 0,77%).
- Low trading market risk in relation to total bank operations (economic capital held is only 0,5% of the minimum economic capital requirement for Nedbank Group and is conservatively based on limits rather than utilisation). Trading activities have focused 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, confirm the adequacy and robustness of the group's CARs and accompanying capital buffers.
- Individual risk appetite targets, as relevant to the approved business activities, have been approved and cascaded down from group level for each business cluster and major business units. Additionally, individual limits for CLRs in a stressed macroeconomic environment have been approved and cascaded down.

In conclusion, Nedbank Group has a strong risk culture and a conservative risk appetite, which is well-formalised, managed and monitored on an ongoing basis, bearing in mind the board's ultimate approval and oversight.



# Stress and scenario testing

The main objective of Nedbank Group's stress testing is to assess the effect of possible unexpected events on Nedbank Group's base-case projections, including capital requirements, resources and adequacy of capital buffers for both regulatory capital and the ICAAP. In addition, stress testing is an important tool for analysing Nedbank Group's risk profile and setting risk appetite.

Nedbank's holistic groupwide stress testing is at the forefront of international banks similar processes. Stress testing within business units has also been given added attention ensuring that it has the appropriate focus and aligns with best practice standards. 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.

During 2016 Nedbank performed comprehensive stress testing on the possible impact of the South African sovereign being downgraded to sub investment grade by one or more of the ratings agencies. In this regard Nedbank has extensively considered a response to such an event as part of its proactive contingency planning in order to mitigate potential adverse consequences. As Nedbank's ratings are capped at the sovereign ceiling, any downgrade of the sovereign would lead to a downgrade of Nedbank and all SA banks.

Initially a downgrade was anticipated to have a severe negative impact on the economy and therefore the scenario was considered to be in line with a severe inflationary scenario. However, as the market has started to anticipate such an event, a material portion of the negative impact of a potential downgrade has already been priced into markets, so that the impact of a downgrade is now considered less severe (albeit still material) and more in line with a high stress scenario from the existing mild stress levels.

## Nedbank Group's Stress and Scenario Testing Framework

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. 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 turn-around 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, therefore a possible specific stress test event would incorporate all risk factors affecting this sector, including obligor-specific, industry and macro-economic 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 is performed, at both a bank and industry level, in order to appropriately size 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 Credit Committee or Cluster Credit Committee (CCC).

## Stress frequency and scenarios

Pillar 2 stress and scenario testing is performed quarterly and reported to the Group Asset and Liability Committee and Executive Risk Committee (Group Alco) and to the board's GRCMC. Macroeconomic scenarios of different severities are considered, ranging from a mild stress to severe inflationary and severe deflationary scenarios. Results include effects on the major income statement items and consequently earnings, on regulatory capital, economic capital, available capital resources and therefore CARs.

In addition to the quarterly stress testing process, a comprehensive set of relevant scenarios are also considered and presented during the annual ICAAP. The scenarios considered for the 2016 ICAAP were:

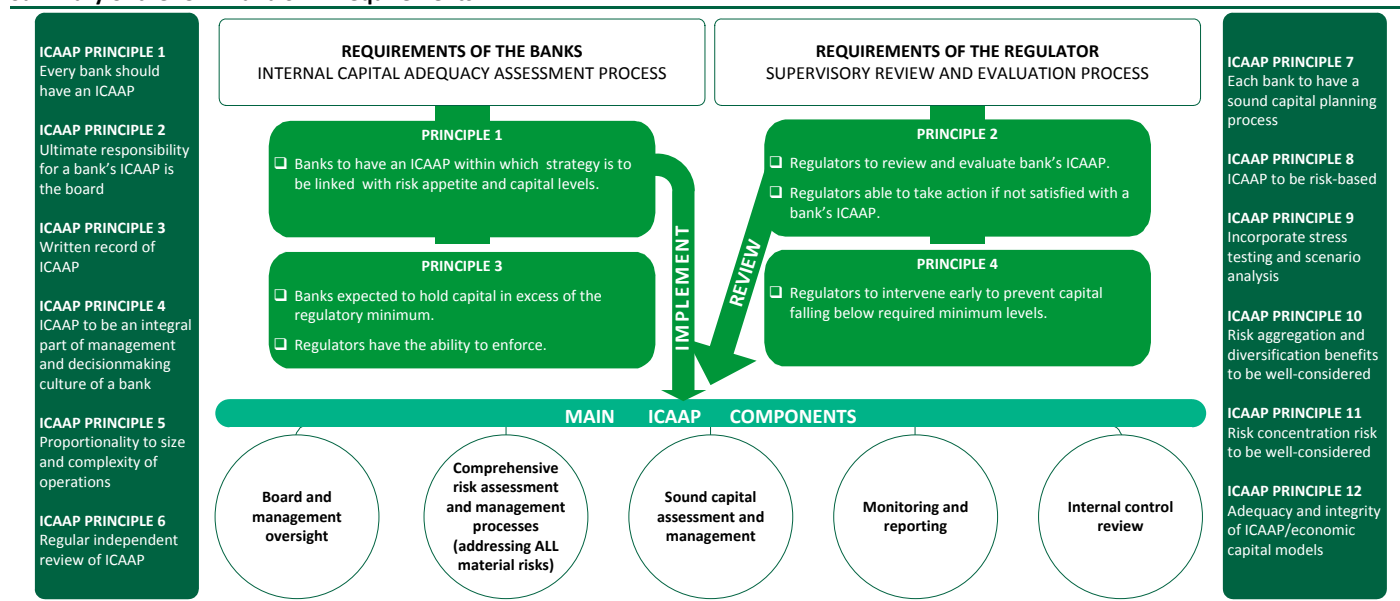
- A continuum of macroeconomic stress scenarios as described above.
- Specific high risk portfolio stresses, such as the oil and gas sector in CIB.
- Specific risk type stresses, such as concentration risk and liquidity risk stress testing.
- Specific event type scenarios, such as a sudden operational risk loss event in the form of a cyber-attack.
- Reverse stress testing.
- Benchmarking to relevant international stress scenarios such as the European Banking Authority, Bank of England and US Federal Reserve stress testing exercises.

Nedbank's stress testing strategy, the severity of the stressed macroeconomic scenarios and the additional stress scenarios are challenged, debated and discussed before being finalised for the annual ICAAP at executive management level by Group Alco and at a non-executive management level by the GRCMC.

# Internal Capital Adequacy Assessment Process overview

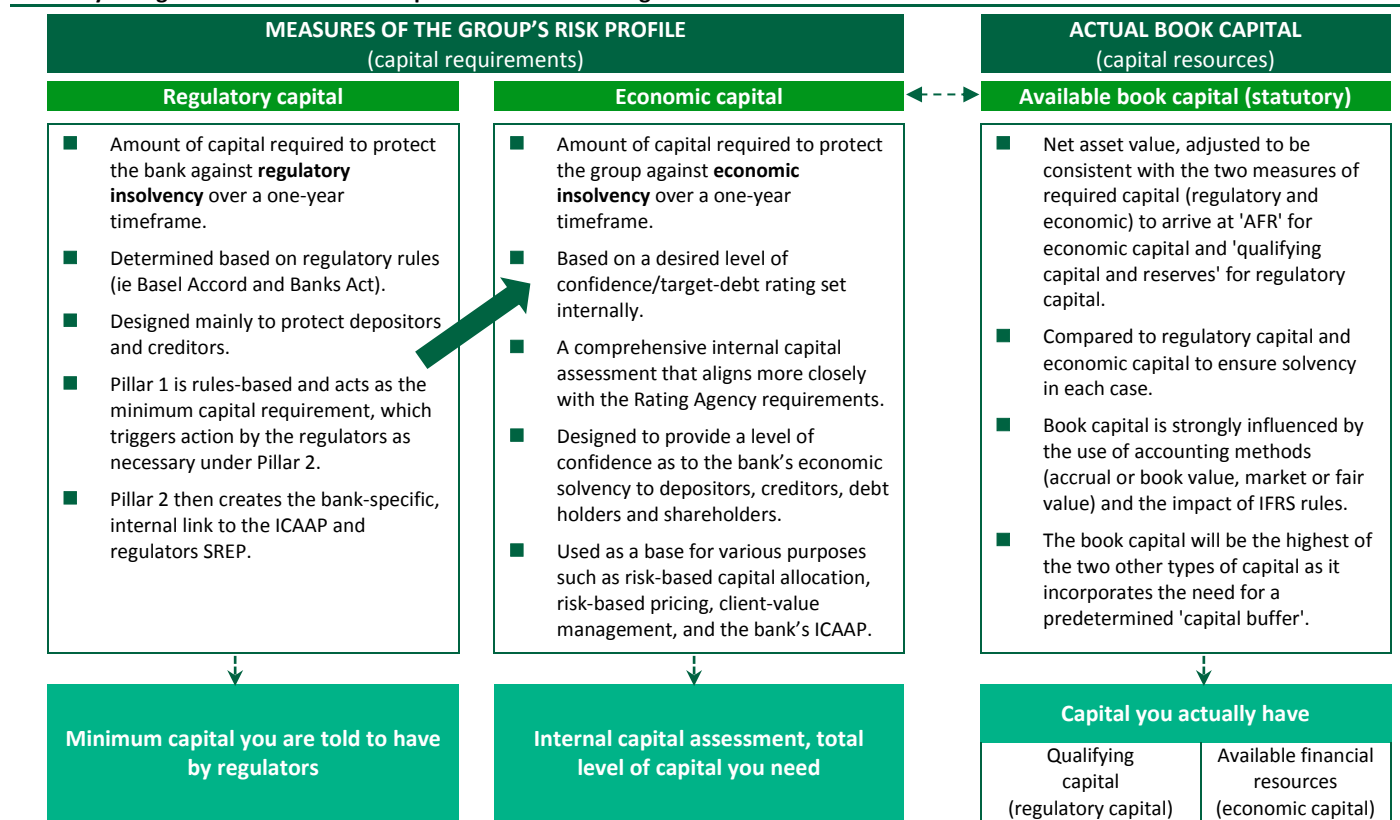
A summary of the four key principles contained in **Pillar 2** of **Basel III**, regulation 39 of the regulations relating to banks issued in terms of the Banks Act (Act No. 94 of 1990) [including guidance provided by SARB in Guidance Note 4 of 2015], the ICAAP requirements of banks and related Supervisory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

## Summary of the ICAAP and SREP requirements



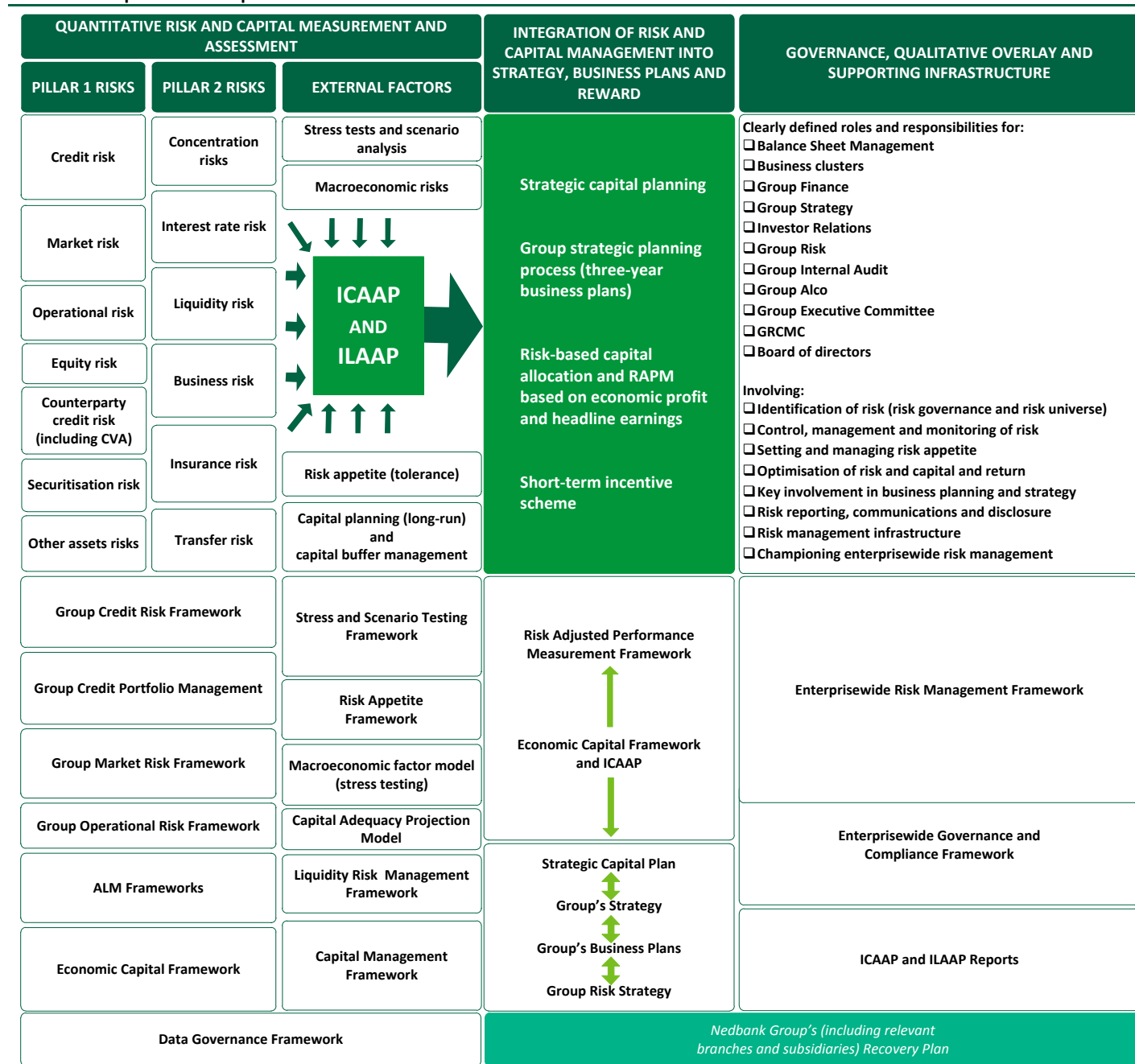
The ICAAP is primarily concerned with Nedbank's comprehensive approach, measurement and management of risk and capital from an internal perspective, that is, over and above the minimum regulatory rules and requirements of Basel III. To this end it is important to highlight that Nedbank Group has several 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 its 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 29.

The ultimate responsibility for the ICAAP rests with the board of directors. The risk and capital management responsibilities of the board and 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

Regulation, mainly in the form of Basel III, has been largely about three key themes (capital, liquidity and risk coverage), and the Recovery and Resolution Plan (RRP) is a clear part of this in:

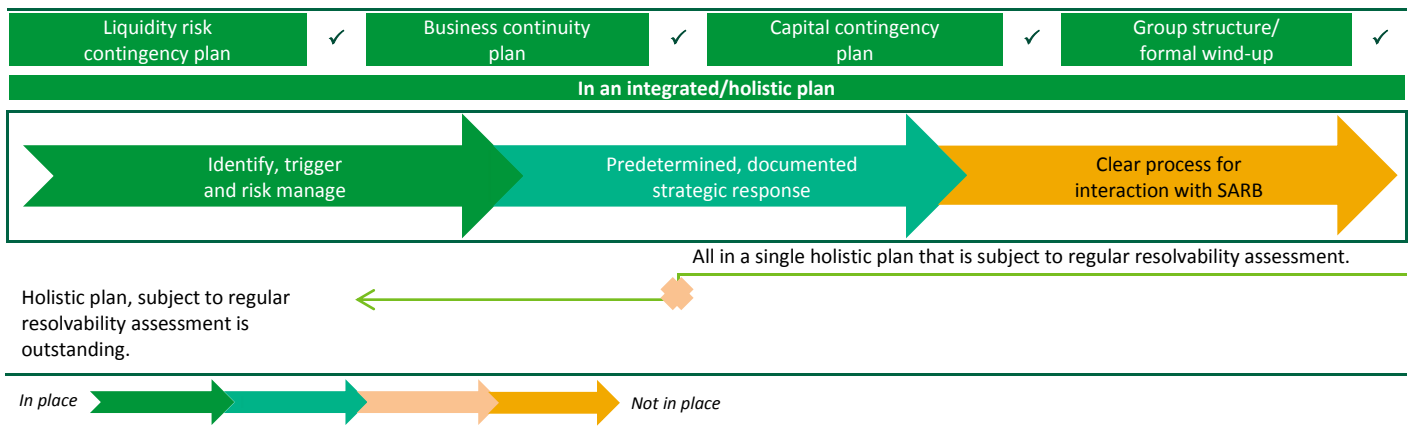
- Reducing the risk of banks failing (RPs).
- Reducing the impact of failure (resolution plans).
- Ring fencing the state/tax payers from any implicit support to the banking sector (ie mitigate against resolution with bail-out).

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 develop robust and credible RRP in line with Basel III. RRP, 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 released for comment its resolution white paper titled 'Strengthening SA's Resolution Framework for Financial Institutions' in August 2015. A draft Special Resolution Bill is expected in 2017, with such bill then being enacted within a reasonable time thereafter. The resolution white paper introduced and/or confirmed the following:

- The establishment of a resolution authority (SARB) specifically responsible for managing the resolution of a financial institution.
- The creation of a Deposit Guarantee Scheme.
- The introduction of the bail-in-concept.
  - 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 bail-in, 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.
  - In order to adhere to the NCWO rule, the sequence in which creditors are bailed-in should respect and be in line with the hierarchy of creditor claims in liquidation.
- The possible 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 a RP outlined below:

- Liquidity: ✓
  - Liquidity Risk Contingency Plan (LRCP) established and embedded.
  - The LRCP and RP were rigorously tested in March 2015 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 areas of improvement identified have been implemented. These simulations are typically conducted every three years with the next simulation scheduled for 2018.
  - The ILAAP has been fully embedded.
- Capital: ✓
  - Best practise ICAAP 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 new-style additional tier 1 (R2,0bn) and tier 2 (R2,0bn) capital instruments during 2016, in line with the group's capital plan.
  - Bail-in of debt established via the changes in the Banks Amendment Bill in order 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. These programmes are regularly tested and validated.
- Group structure/formalised wind-up while being 'open for business': ✓
  - Part of the ERMF.
  - Relatively simple group structure.
  - The entities within the group are reviewed on a regular basis and rationalised where possible.
  - The big SA banks are not complex versus international banks.



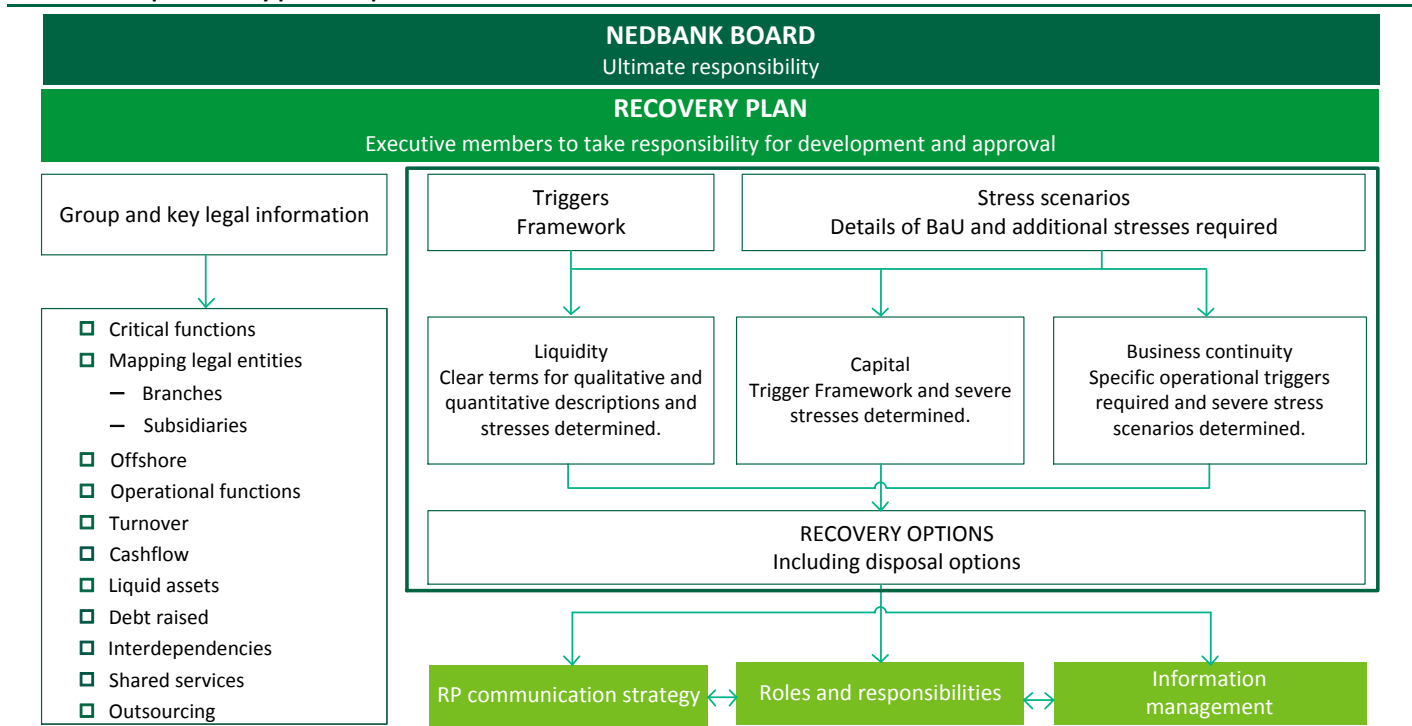
Overall, Nedbank Group believes it currently has the ability to identify, trigger and manage a recovery state caused typically by a solvency or liquidity event, but needs to continuously evolve and test this plan with strategic responses for various feasible causes of such an event and needs to close the gap between the bank's RP and the regulator's resolution plan in due course, as the Special Resolution Bill is finalised in strengthening SA's Resolution Framework for financial institutions.

The RP element of RRP aims to set a clearer framework for Nedbank to take the most severe actions (ie sale of the business, significant asset sales etc) 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 and 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 which 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 within the group, across all the geographic locations in which they operate. This RP relates to all entities within the group, including associates and joint ventures, noting that a new RP was specifically created for Nedbank Namibia during 2016, with RPs having been created for Private Wealth International [based in the Isle of Man (IOM)] and the London branch of Nedbank Limited, during 2015. 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, in order to assess whether the disposal of such an investment may assist in the recovery of the group in a particular crisis scenario.

#### 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 group exco and the board. The RP complements the existing group's capital, liquidity and stress testing policies and procedures.

On the 11 March 2016 Old Mutual Plc announced that they plan to reduce their controlling stake in Nedbank Group Limited to a strategic minority shareholding, with a target date for material completion by end 2018. Old Mutual stated that they plan to reduce their controlling stake by way of a distribution of Nedbank shares to shareholders of Old Mutual and not by way of selling their shares to another strategic investor.

Old Mutual's decision to separate its four businesses will have no impact on the strategy, day to day management or operations of Nedbank. In addition there is no anticipated impact on the capital and liquidity position of Nedbank. With regards to recovery planning it is assumed that for as long as Old Mutual remains a majority shareholder, they will continue to fulfil the role of a majority shareholder noting that over time their role will migrate into one of a strategic minority shareholder and that the RP will be amended accordingly. The RP will be monitored and updated accordingly based on their transition from a majority shareholder to a strategic minority shareholder.

The RP includes levels of 'low to severe stress', whereby 'recovery' and 'resolution' levels represent escalating degrees of stress that the group might 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 avoid resolution. Under this plan early warning indicators (EWI) have been identified that would be initiated at level one during a low to moderate stress, 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 situation and prepare itself for recovery. This is consistent with the Nedbank ERMF. These crisis levels allow Nedbank to appropriately assess the levels of stress 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 media).

Recommendations made by the SARB following their review of the 2015 RP were taken into account in Nedbank's 2016 update of its RP, which has been approved by group exco and the board and which has subsequently also been reviewed by the SARB during 2016. Nedbank's annual RP onsite with SARB took place on 28 July 2016, where some non-material refinements were proposed and will be built into the 2017 RP update as part of the business-as-usual (BaU) RP annual update process.



# 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.

Strategic Portfolio Tilt 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 management and client value management.

The key objectives of Strategic Portfolio Tilt are as follows:

- Maximise EP by emphasising and optimising EP-rich activities.
- Strategic portfolio management to optimise the allocation and use of scarce resources [eg capital, funding and liquidity, information technology (IT) innovation and marketing spend] and risk appetite, while investing for the future, to grow the franchise and maintain a robust balance sheet.
- Differentiated, selective growth strategies aligned with the macroeconomic cycle and biased towards high growth and high EP businesses.
- Optimise the strategic impact of Basel III, including the transitional requirements and ongoing work in progress items.
- Grow market share in retail and commercial deposits, in particular high growth of EP rich transactional (lazy) deposits.
- Effective risk management within the desired risk appetite.
- Fair Share 2030: contributing to government's planning objectives in creating a prosperous and long-term sustainable society through investment in education, water, clean energy, financial inclusion, job creation, etc.

The key considerations of Strategic Portfolio Tilt 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:

- Rising anti-globalisation and policy uncertainty in developed countries.
- Ongoing currency and market volatility.
- Commodity prices off their lows.
- Average inflation for the year elevated at above SARB upper target range at 6,4% (2015: 4,6%), however forecast to decline to within the SARB with interest rates close to their peak.
- Persistent macroeconomic challenges in SA evident by slow gross domestic product (GDP) growth of 0,4%.
- Consumer strain witnessed by higher impairment charges in retail business and consumers remain highly indebted.
- Interest rates are forecast to decrease in September 2017, November 2017 and March 2018.
- Regulation will continue to have a substantial impact on bank strategy and profitability in the planning cycle, however the group is well positioned for Basel III regulatory requirements.

# 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 its capital adequacy and sustainability, and so promotes sound business behaviour by linking these 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 sub frameworks, including economic capital. A summary table of the key risk types impacting the group is provided below and highlights where the 17 key ERMF risk types map to the quantitative risk types of the Economic Capital (and ICAAP) Framework. An overview of the key risks impacting Nedbank Group follows thereafter. Refer to page 9 for details on Nedbank Group's ERMF.

Major risk categories	ERMF's 17-key risk types	Economic capital (ICAAP) risk types
<b>Capital risk</b>	Capital risk	Is the aggregation of all risk types = economic capital
<b>Credit risks</b>	<b>Credit risk:</b> <ul style="list-style-type: none"> <li>■ Underwriting (lending) risk</li> <li>■ Procyclicality risk</li> <li>■ Counterparty risk</li> <li>■ Collateral risk</li> <li>■ Concentration risk</li> <li>■ Industry risk</li> <li>■ Issuer risk</li> <li>■ Settlement risk</li> <li>■ Country risk/cross border risk</li> <li>■ Securitisation risk or re-securitisation structures</li> <li>■ Transfer (sovereign) risk</li> <li>■ Stress testing</li> </ul>	<b>Credit risk</b> Integrated in 'credit risk' Integrated in 'credit risk' Integrated in 'credit risk' Integrated in 'credit risk' Integrated in 'credit risk' Integrated in 'credit risk' Integrated in 'credit risk' Integrated in 'credit risk' Integrated in 'credit risk' Integrated in 'credit risk' Integrated in 'credit risk'
<b>Counterparty credit risk</b>	Sub-set of credit risk [includes credit valuation adjustment (CVA)]	Counterparty credit risk
<b>Transfer (cross border) risk</b>	Sub-set of credit risk	Transfer risk
<b>Securitisation risk</b>	Sub-set of liquidity risk	Securitisation risk
<b>Liquidity and funding risk</b>	<b>Liquidity risk:</b> <ul style="list-style-type: none"> <li>■ Concentration risk</li> <li>■ Stress testing</li> <li>■ Securitisation</li> <li>■ Liquidity and funding risk</li> <li>■ Market liquidity risk</li> </ul>	Liquidity risk mitigated through the ILAAP, liquidity profile targets and limits, and the holding of surplus liquidity buffers as opposed to holding economic capital.
<b>Market risks</b>	<b>Market risk in the trading book:</b> <ul style="list-style-type: none"> <li>■ Concentration risk</li> <li>■ Stress testing</li> </ul> <b>Market risk in the banking book:</b> <ul style="list-style-type: none"> <li>■ IRRBB</li> <li>■ Foreign currency translation (FCT) risk</li> <li>■ Foreign exchange transaction risk</li> <li>■ Investment risk</li> <li>■ Equity risk in the banking book</li> <li>■ Property risk</li> </ul>	Trading (position) risk  IRRBB N/A N/A Investment risk Equity (investment risk) Property risk
<b>Operational risks</b>	<b>Operational risk:</b> <ul style="list-style-type: none"> <li>■ Accounting, financial and taxation risks</li> <li>■ Compliance risk</li> <li>■ People risk (non-strategic component)</li> <li>■ Insurance risks</li> <li>■ IT risk (non-strategic component)</li> <li>■ Financial crime risk</li> <li>■ Reputational risk</li> </ul>	Operational risk Covered by operational risk Covered by operational risk Covered by operational risk Covered by operational risk Covered by operational risk Covered by operational risk Covered by operational risk
<b>Business risks</b>	<ul style="list-style-type: none"> <li>■ Transformation risk, social and environmental risks</li> <li>■ Business and strategic execution risk</li> <li>■ People risk (strategic component, strategic and compensation practices for directors and officers)</li> <li>■ IT risk (strategic component)</li> <li>■ Governance risk</li> <li>■ Regulatory risk</li> <li>■ Conduct risk</li> </ul>	Covered by business risk Covered by business risk (excluding strategic execution risk)  Covered by business risk Covered by business risk Covered by business risk Covered by business risk Covered by business risk

# 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 document requires Nedbank Group and its banking subsidiaries (including Nedbank Limited, Nedbank Private Wealth Limited, Nedbank Namibia, Nedbank Swaziland, Nedbank Lesotho, MBCA Bank Limited, 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 structuring	Capital allocation	Risk and capital optimisation
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### Capital investment

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

The group's Macroeconomic Factor Model 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. This is a dynamic plan and process which establishes 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 GRMC 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 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 or regulatory capital allocation (currently being regulatory capital), strategic portfolio management and RAPM (primarily driven by EP and 'manage for value' principles). With effect from 2016 business unit capital allocation is determined at the higher of in-country statutory capital, regulatory capital or economic capital.

## SOURCES OF REGULATORY CAPITAL

### CET1 capital

- Shareholders' equity



### Additional tier 1 capital

- Preference shares
- Subordinated debt



### Tier 2 capital

- Subordinated debt



## 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 ie total regulatory minimum requirement with effect from 2016, resulting in the higher of regulatory and economic capital allocation.

- 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. This enables 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 13 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 cyclicity and stressed scenarios. The total requirement is then compared with AFR. The 10% capital buffer was deemed appropriate, based on the group's comprehensive Stress and Scenario Testing Framework and RAF. Refer to page 38 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.
+			
TRANSFER RISK			
(closely related to credit risk but arises due to sovereign default and so separately modelled and quantified)			
Similar to the AIRB credit methodology, but dependent on the probability and extent of a transfer event (ie sovereign default), with no interrisk diversification recognised.			
+			
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	300% and 400% risk weightings in line with Basel III equity risk. PD/LGD approach for Property Finance.	
+			
Operational risk	Business risk	Insurance underwriting risk	Other assets
AMA	GOI based top-down 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). Confidence 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 and new-style Basel III additional tier 1 and tier 2 capital instruments.			

Note: There are 13 quantifiable risk categories. Property and equity (investment) risk are treated as separate risks.

The economic capital results are shown from page 38.

## Credit risk capital

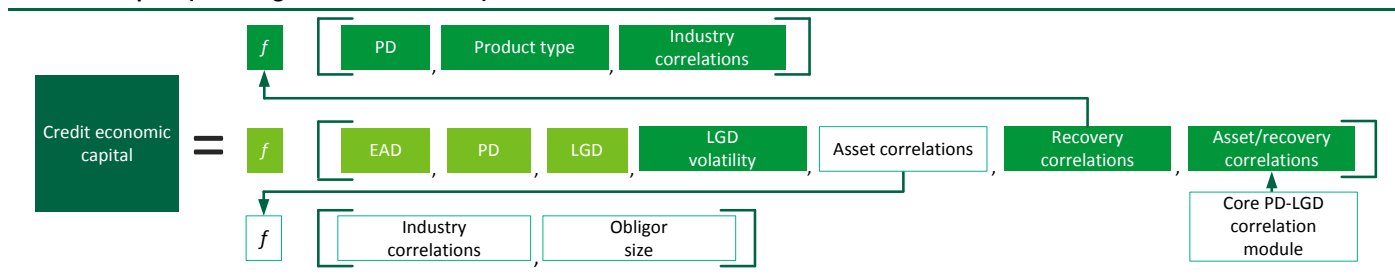
Nedbank Limited and Nedbank London branch make up 94% of the total credit extended by Nedbank Group and are on the AIRB Approach. The legacy Fairbairn Private Bank (UK), the non-SA subsidiaries credit portfolios and some of the legacy Imperial Bank portfolio in Nedbank RBB remain on TSA.

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 Fairbairn Private Bank (UK) 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) 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 formulation of its Standardised Approach (SA-CCR) for measuring EAD for CCR. The SA-CCR will replace both the CEM and the Standardised Method and Nedbank is well positioned to implement the new requirements and continues to monitor the impact of the new measurement of EAD for CCR.

## 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. The credit exposures that Nedbank Group measures in terms of securitisation, use a combination of the ratings-based approach and supervisory formula approach (both AIRB Approaches) 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.

## Transfer risk capital

Transfer risk is the risk that a government will be unable or unwilling to make 'hard currency' available by imposing currency controls, which limit the ability of otherwise healthy borrowers within the country from servicing their foreign currency debt, causing a transfer event.

Transfer events usually only impact facilities repayable in 'hard currency' made to clients in foreign countries, but they also affect any loan denominated in a currency other than the local currency of the borrower, since the borrower needs to obtain foreign currency to repay the debt. It covers losses suffered when a client, because of circumstances in its country of domicile, is unable to obtain the foreign currency needed to meet its obligations.

Transfer risk is not separately identified by Basel III for Pillar 1 regulatory capital. It is potentially a significant risk type and therefore is included in Nedbank Group's economic capital model. However, given that for Nedbank very little credit risk currently originates from outside SA, transfer risk economic capital is not a significant amount for the group at present.

Transfer risk is treated separately from CCR because it is wholly caused by a sovereign's action and, fundamentally, it is independent of the counterparty.

Transfer events and sovereign defaults are closely related, as both are driven by the credit quality of the sovereign. However, while transfer events are often coincidental with sovereign defaults, they are not synonymous. Governments may default rather than restrict access to 'hard currency' so as to maintain cross-border trade. Alternatively governments may impose currency restrictions to prevent capital flight and hence retain 'hard currency' to meet debt payments.

In general transfer risk is modelled similarly to credit (issuer and counterparty) risk, but it is dependent on the following:

- The probability of a country declaring a transfer event (probability of transfer event).
- The percentage of the exposure that will be lost in the event of a transfer event (loss given transfer event).
- The exposure in the event of a transfer event (exposure at transfer event).

The methodology also takes into account the correlation of transfer risk events occurring between countries.

## Trading market risk capital

The economic capital and regulatory capital requirements for trading market risk are not materially different. However, conservatism is introduced in the 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 risk per market risk type and legal entity 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 the SARB and is based on their 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 while no diversification benefit is applied for economic capital requirements.

Nedbank is aware of the forthcoming substantial change to the market risk regulatory capitalisation requirements under the updated 'minimum capital requirements for market risk' (previously referred to as FRTB). This regulation aims to address the shortfalls of the current regulatory framework and provide substantial enhancements, not only to trading market risk capitalisation levels but towards the entire governance process. Nedbank has participated in a number of Quantitative Impact Study (QIS) exercises and is actively preparing for the expected future regulatory requirements in this regard.

## 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. Economic value of equity (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 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 to 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 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. The risk weight multipliers are currently set at 30% (300% x 10%) for listed equities and 40% (400% x 10%) for unlisted equities. These multipliers are applied to the investment exposures to derive the standalone economic capital figures.

## Business risk capital

Business risk is caused by uncertainty in profits due to changes in the competitive environment 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, readily observable and 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.

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.

The business risk approach at Nedbank is effectively split into two parts; a top-down calculation of the group's capital requirement and a bottom-up 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 to the 99,90% confidence interval required for regulatory capital. For economic capital no capital floors were applied under the 2016 methodology. For regulatory capital, a floor based on a percentage of TSA capital is applied to meet the minimum requirements prescribed by SARB.

## 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 and short-term claims. 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 customers (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 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 launch of SAM has been delayed. The insurance businesses are currently engaged in the SAM comprehensive parallel run, during which the insurance business is required to report to the FSB on both the current regulatory regime and the SAM regulatory regime.

## 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). Note that 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.

## Inter-risk 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 inter-risk 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 inter-risk 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 inter-risk diversification benefit at Nedbank Group is allocated back (in the capital allocation) to the business units rather than being 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 13 of the key risk categories in its ERMF to the group's Economic Capital Framework, 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 an experienced Centralised Funding Desk (CFD) within 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.

## Capital optimisation (including risk optimisation)

Capital optimisation in Nedbank Group is about seeking 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 as set out in the group's RAPM Framework.

Aside from helping to optimise financial performance and shareholder value creation, the group's enhanced 'managing for value' capabilities will have a positive influence on the group's ability to operate in a much more capital- and liquidity-constrained market environment, including its strategic decisions about where and to what extent it chooses to allocate the group's capital.

## Regulatory capital adequacy and leverage

### STRONG CAPITAL RATIOS ABOVE REGULATORY MINIMUM REQUIREMENTS AND WITHIN INTERNAL TARGET RANGES<sup>1</sup>

		SARB minimum <sup>2</sup>	Internal targets <sup>3</sup>	2016	2015
<b>Nedbank Group</b>					
<b>Including unappropriated profits</b>					
Total	(%)		> 14	15,3	14,1
Total tier 1	(%)		> 12	13,0	12,0
CET1	(%)		10,5 – 12,5	12,1	11,3
Surplus total capital	(Rm)			24 868	20 400
Total RWA	(Rm)			509 221	501 243
Total RWA/total assets	(%)		> 50	53	54
Leverage	(times)	< 25	< 20	15,3	16,3
Dividend cover	(times)		1,75 – 2,25	2,00	2,06
Cost of equity (COE)	(%)			14,2	13,0
<b>Excluding unappropriated profits</b>					
Total	(%)	10,375		14,4	13,4
Total tier 1	(%)	8,375		12,1	11,3
CET1	(%)	6,875		11,3	10,7
<b>Nedbank Limited</b>					
<b>Including unappropriated profits</b>					
Total	(%)		> 14	15,9	14,1
Total tier 1	(%)		> 12	12,9	11,5
CET1	(%)		10,5 – 12,5	11,7	10,6
Surplus total capital	(Rm)			23 676	16 938
Total RWA	(Rm)			425 406	416 543
<b>Excluding unappropriated profits</b>					
Total	(%)	10,375		15,6	13,8
Total tier 1	(%)	8,375		12,5	11,2
CET1	(%)	6,875		11,3	10,3

<sup>1</sup> In line with regulation 38(10) of the regulations relating to banks issued in terms of the Banks Act (Act No. 94 of 1990), profits do not qualify as regulatory capital, unless formally appropriated by the board by way of a resolution. Accordingly, capital ratios are shown above, both including and excluding unappropriated profits.

<sup>2</sup> SARB minimum requirements for 2016 have increased in line with the transitional requirements and excludes bank-specific Pillar 2b and domestic systemically important bank (D-SIB) capital requirements.

<sup>3</sup> Nedbank's internal TTC targets are based on the 2019 end state minimum regulatory requirements.

Nedbank's IFRS 9 implementation programme is on track and the group is well positioned for a parallel run in 2017. While we expect a transitional increase in balance sheet provisions in line with the requirements of the standard, this is not anticipated to have a significant impact on our capital adequacy levels.

### NEDBANK GROUP SUBSIDIARIES ARE WELL CAPITALISED FOR THE ENVIRONMENTS IN WHICH THEY OPERATE

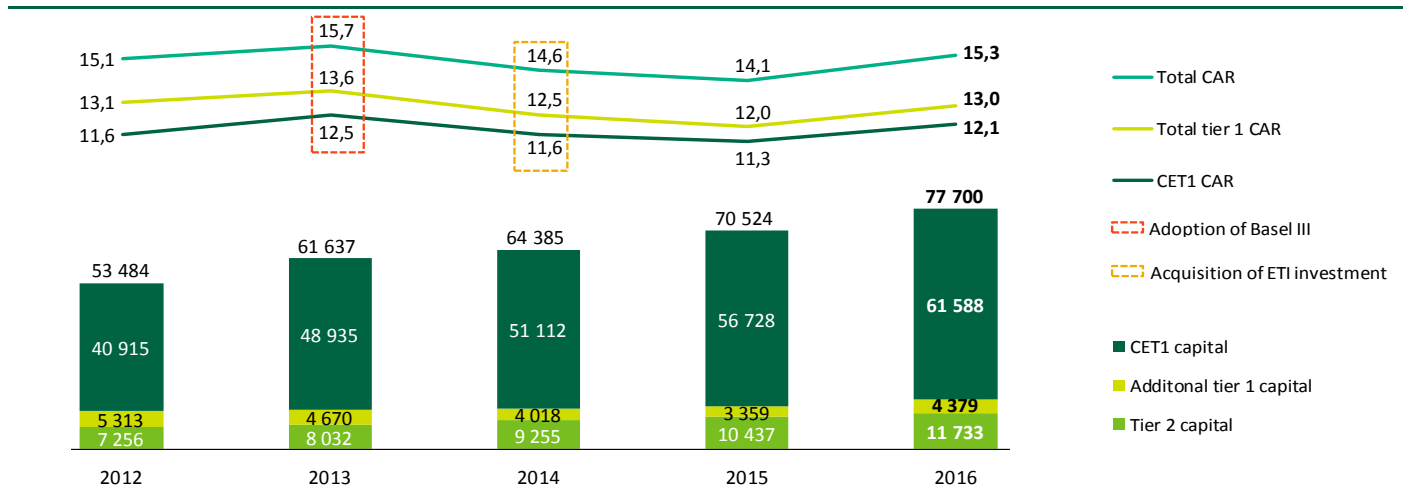
	2016				2015		
	Total capital requirement (host country)	RWA	CET1 ratio	Total capital ratio	RWA	CET1 ratio	Total capital ratio
	%	Rm	%	%	Rm	%	%
<b>Rest of Africa</b>							
Banco Único <sup>1</sup>	8,0	2 772		12,4			
Nedbank Namibia Limited	10,0	11 573	12,1	14,0	9 678	12,7	14,8
Nedbank (Swaziland) Limited	8,0	3 262		21,0	2 859		20,7
Nedbank (Lesotho) Limited	8,0	1 611		25,0	1 619		21,8
Nedbank (Malawi) Limited	15,0	408		15,8	506		15,4
MBCA Bank Limited (Zimbabwe)	12,0	2 491		26,0	2 700		25,2
<b>United Kingdom</b>							
Nedbank Private Wealth (IOM) Limited	10,0	6 781	15,1	15,1	8 703	14,7	14,7

<sup>1</sup> During the reporting period, Nedbank acquired control of Banco Único and accordingly this previously equity-accounted investment has been consolidated from 3 October 2016.

Nedbank Group strengthened its capital adequacy position in 2016. The group's strong capital profile is supported by:

- A strong capital stack, with a focus on fully loss-absorbent capital, with Basel III fully-compliant capital now making up 94% of the group's total capital with the balance being old-style capital instruments subject to grandfathering.
- A conservative RWA density of 53% (RWA/total assets), which compares favourably with local and international peers.
- Total capital surplus of R24,9bn, well above the minimum regulatory requirements, indicative of substantial capital buffers for the group.

## Nedbank Group's capital adequacy strengthened year on year



Nedbank Group's CET1 ratio improved to 12,1% from 11,3% in 2015, due to:

- An increase in qualifying capital and reserves as a result of organic earnings, offset by the payment of the dividend of R5,7bn during 2015. This was offset to a degree by an R8,0bn increase in RWA, primarily as a result of:
  - Trading market RWA growth of R7,5bn due to an increase in market volatility and the capital requirements for XVA hedges.
  - Equity RWA growth of R5,1bn due to balance sheet growth.
  - Other assets RWA (excluding threshold deduction items) growth of R4,8bn due to balance sheet movements.
  - Operational RWA growth of R3,0bn due to an increase in the three-year average GOI parameters.
  - These RWA increases were offset by a decrease in credit RWA of R13,2bn. The decrease was mainly due to Basel III model refinements within the Nedbank Retail portfolio and the relative strengthening of the rand which impacted offshore lending activities in the London and Fairbairn portfolios. These were offset by increases driven by balance sheet growth particularly in the commercial mortgage book and the inclusion of Banco Único following its consolidation.

The issuance of new-style additional tier 1 (R2,0bn) and tier 2 (R2,0bn) capital instruments during 2016 further strengthened the group's tier 1 and total CAR respectively.

Nedbank Group has performed extensive and comprehensive stress testing during this period and concluded that the group's capital levels and capital buffers remain appropriate and that Nedbank Group is strongly capitalised relative to its business activities, strategy, risk appetite, risk profile and the external environment in which the group operates.

Nedbank Group's gearing (including unappropriated profits) under the 'Leverage Ratio Framework and disclosure requirements' has strengthened to 15,3 times (or 6,6%) from 16,3 times or 6,1% in 2015, essentially due to an increase in the capital measure, primarily driven by organic capital generation with relatively low balance sheet growth during the period, and due to the issuance of new-style additional tier 1 capital instruments of R2,0bn during 2016.

### NEDBANK GROUP SUMMARY OF RISK-WEIGHTED ASSETS MOVEMENTS BY KEY DRIVERS

Rm	Credit risk <sup>1</sup>	Equity risk	Trading market risk	Operational risk	Other assets	Total
Balance at the beginning of the period (as at 1 January 2016)	390 004	13 011	10 020	58 318	29 890	501 243
Book growth	37 106 <sup>2</sup>	5 145	(276)	3 027	5 442	50 444
Book quality	(12 321)		468			(11 853)
Model updates	(26 671)					(26 671)
Methodology and policy	(2 100) <sup>3</sup>					(2 100)
Foreign exchange movements	(9 172)		7 330			(1 842)
<b>Balance at the end of the period – 31 December 2016</b>	<b>376 846</b>	<b>18 156</b>	<b>17 542</b>	<b>61 345</b>	<b>35 332</b>	<b>509 221</b>

<sup>1</sup> Credit risk includes CCR and securitisation risk.

<sup>2</sup> R5,5bn is due to consolidation of Banco Único.

<sup>3</sup> Relates to the implementation of SARB Directive 1/2016, which updated the threshold for Small-and medium-sized enterprises (SME) – Retail treatment from R7,5m to R12,5m.

### High level definitions

- Book growth – organic changes in book size and composition (including new business and maturing loans). In the case of operational risk, any movements in GOI.
- Book quality – movements caused by changes in the underlying customer behaviour or demographics, including changes through model calibrations/realignments.
- Model updates – model implementation, change in model scope or any change to address model malfunctions.
- Methodology and policy – methodology changes to the calculations driven by regulatory policy changes.
- Foreign exchange movements – movement in RWA as a result of currency movement.

**OV1: OVERVIEW OF RISK-WEIGHTED ASSETS**

	Dec 2016	Sep 2016	Dec 2016
	RWA	RWA	Minimum capital requirements <sup>1</sup>
<b>1 Credit risk (excluding CCR)</b>	<b>360 731</b>	<b>368 179</b>	<b>37 350</b>
2 Standardised Approach (TSA) <sup>2</sup>	37 176	27 813	3 781
3 AIRB Approach <sup>3</sup>	323 555	340 366	33 569
<b>4 CCR</b>	<b>15 745</b>	<b>14 214</b>	<b>1 634</b>
5 SA-CCR	15 745	14 214	1 634
6 Internal Model Method (IMM)			
<b>7 Equity positions in banking book under market-based approach (SRWA)</b>	<b>18 156</b>	<b>14 143</b>	<b>1 884</b>
11 Settlement risk			
<b>12 Securitisation exposures in banking book</b>	<b>1 097</b>	<b>1 361</b>	<b>114</b>
13 IRB Ratings-based Approach (RBA)	1 097	1 361	114
14 IRB Supervisory Formula Approach (SFA)			
15 SA/Simplified Supervisory Formula Approach (SSFA)			
<b>16 Market risk</b>	<b>17 542</b>	<b>16 271</b>	<b>1 820</b>
17 Standardised Approach (TSA)	2 125	2 130	220
18 IMA	15 417	14 141	1 600
<b>19 Operational risk</b>	<b>61 345</b>	<b>61 792</b>	<b>6 364</b>
20 Basic Indicator Approach			
21 Standardised Approach	5 044	4 763	523
22 AMA	43 741	39 152	4 538
24 Floor adjustment	12 560	17 877	1 303
<b>23 Amounts below the thresholds for deduction (subject to 250% risk weight)</b>	<b>15 404</b>	<b>14 122</b>	<b>1 598</b>
<b>25 Other assets (100% risk weighting)<sup>2</sup></b>	<b>19 201</b>	<b>19 165</b>	<b>2 068</b>
<b>26 Total</b>	<b>509 221</b>	<b>509 247</b>	<b>52 832</b>

<sup>1</sup> Total minimum required capital is measured at 10,375% in line with transitional requirements and excludes bank-specific Pillar 2b and D-SIB capital requirements.

<sup>2</sup> Other assets are included in TSA credit RWA as per the BCBS's Revised Pillar 3 disclosure requirements. This disclosure is different from the December 2016 Results Booklet, where TSA credit RWA (other assets) was included in the Other assets RWA.

<sup>3</sup> The AIRB credit RWA includes the total RWA from the CR6 (AIRB – credit risk exposure by portfolio and PD range) disclosure, the high-volatility commercial real estate (HVCRE) RWA from CR10 (AIRB Specialised lending) disclosure and any relevant RWA add-ons.

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

	Nedbank Group		Nedbank Limited	
Rm	2016	2015	2016	2015
<b>Including unappropriated profits</b>				
<b>Total tier 1 capital</b>	<b>65 967</b>	<b>60 087</b>	<b>54 983</b>	<b>47 761</b>
<b>CET1</b>	<b>61 588</b>	<b>56 728</b>	<b>49 795</b>	<b>44 200</b>
Ordinary share capital and premium	18 521	18 046	19 221	18 571
Minority interest: ordinary shareholders'	675	365		
Reserves	56 687	56 164	40 951	35 552
Deductions <sup>2</sup>	(14 295)	(17 847)	(10 377)	(9 923)
Goodwill	(5 199)	(5 257)	(1 410)	(1 410)
Excess of downturn expected loss (dEL) over provisions	(1 502)	(1 791)	(1 537)	(1 807)
Impairments	(415)	(325)	(1 106)	(1 467)
Investments in the common stock of financial entities (amount above 10% threshold) <sup>3</sup>	(514)	(5 017)		
Other deductions	(6 665)	(5 457)	(6 324)	(5 239)
<b>Additional tier 1 capital</b>	<b>4 379</b>	<b>3 359</b>	<b>5 188</b>	<b>3 561</b>
<b>Tier 2 capital</b>	<b>11 733</b>	<b>10 437</b>	<b>12 829</b>	<b>10 831</b>
<b>Total qualifying capital and reserves<sup>1</sup></b>	<b>77 700</b>	<b>70 524</b>	<b>67 812</b>	<b>58 592</b>
<b>Excluding unappropriated profits</b>				
<b>Total qualifying capital and reserves</b>	<b>73 504</b>	<b>67 304</b>	<b>66 181</b>	<b>57 324</b>
<b>Total tier 1 capital</b>	<b>61 771</b>	<b>56 867</b>	<b>53 352</b>	<b>46 493</b>
<b>CET1 capital</b>	<b>57 392</b>	<b>53 508</b>	<b>48 164</b>	<b>42 932</b>
<b>Analysis of total surplus capitals<sup>5</sup></b>				
<b>Total</b>	<b>24 868</b>	<b>20 400</b>	<b>23 676</b>	<b>16 938</b>
<b>Total tier 1</b>	<b>23 320</b>	<b>19 988</b>	<b>19 355</b>	<b>14 438</b>
<b>CET1</b>	<b>26 579</b>	<b>24 147</b>	<b>20 548</b>	<b>17 125</b>

<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](http://nedbank.co.za/content/nedbank/desktop/gt/en/aboutus/information-hub/capital-and-risk-management-reports.html).

<sup>2</sup> In terms of regulation 43 of the regulations relating to banks issued in terms of the Banks Act (Act No. 94 of 1990), disclosure is required for all exposures that are subject to TSA and are deducted from the bank's capital and reserves. None of the group's standardised exposures were deducted from the bank's capital and reserves.

<sup>3</sup> Nedbank Group 'investments in the common stock of other financial entities' (amount above 10% threshold) is summarised as follows:

Rm	2016	2015
Investments in the common stock of financial entities (amount above 10% threshold) <sup>4</sup>	(514)	(5 017)
ETI	(324)	(3 604)
Investments in other financial entities	(28)	(295)
Other	(162)	(1 118)

<sup>4</sup> The decrease from 2015 is as a result of associated losses from ETI during 2016, Nedbank's share of their own FCT losses (largely due to the weakness in the Nigerian naira and Ghanaian cedi against the US dollar) and the impairment of the investment in ETI of -R1,0bn in 2016.

<sup>5</sup> Includes unappropriated profits.

**FLOW STATEMENT FOR TOTAL REGULATORY CAPITAL**

Rm	Nedbank Group		Nedbank Limited	
	2016	2015	2016	2015
<b>Including unappropriated profits</b>				
<b>CET1 capital</b>				
Opening CET1 capital	56 728	51 112	44 200	40 419
New capital issues and redeemed capital	475	799	650	1 110
Gross dividends (deduction)	(5 587)	(5 395)	(4 250)	(5 200)
Profit for the period (attributable to shareholders of the parent company)	9 823	11 074	9 446	9 329
Movements in other comprehensive income				
Currency translation differences	(3 575)	1 703		
AFS reserves	(38)	(155)	(7)	(7)
Property revaluation reserves	(22)	144	(3)	43
Share-based payments reserves	18	(342)	266	(521)
Other	(88)	(110)	(53)	48
Goodwill and other intangible assets (deduction, net of related tax liability)	(1 113)	(449)	(1 048)	(366)
Deferred tax assets that rely on future profitability (excluding those arising from temporary differences)	53	38		
Defined-benefit pension fund assets	(37)	288	(37)	288
Excess of dEL over provisions	289	(206)	270	(201)
Prudential valuation adjustments: regulation 38(16) minority deduction <sup>1</sup>	310	107		
Prudential valuation adjustments: Dr Holsboer funds	(40)	41		
Total derivative debit valuation adjustment (DVA)	(111)	(166)	(111)	(166)
Impairments			472	(576)
Investments in the common stock of financial entities (amount above 10% threshold)	4 503	(1 755)		
<b>Closing CET1 capital</b>	<b>61 588</b>	<b>56 728</b>	<b>49 795</b>	<b>44 200</b>
<b>Additional tier 1 capital</b>				
Opening additional tier 1 capital	3 359	4 018	3 561	4 250
Additional tier 1 eligible capital issues	2 000		2 000	
Grandfathering		1 045	(373)	1 063
Prudential valuation adjustments: regulation 38(16) minority deduction <sup>1</sup>	(607)	48		
Redeemed capital		(1 752)		(1 752)
Inter-company transactions	(373)			
<b>Closing additional tier 1 capital</b>	<b>4 379</b>	<b>3 359</b>	<b>5 188</b>	<b>3 561</b>
<b>Total tier 1 capital</b>	<b>65 967</b>	<b>60 087</b>	<b>54 983</b>	<b>47 761</b>
<b>Tier 2 capital</b>				
Opening tier 2 capital	10 437	9 255	10 831	9 590
New tier 2 eligible capital issues	2 000	2 256	2 000	2 256
Redeemed capital		(1 000)		(1 000)
Prudential valuation adjustments: regulation 38(16) minority deduction <sup>1</sup>	(776)	(88)		
General allowance for credit impairments	72	14	(2)	(15)
<b>Closing tier 2 capital</b>	<b>11 733</b>	<b>10 437</b>	<b>12 829</b>	<b>10 831</b>
<b>Total regulatory capital</b>	<b>77 700</b>	<b>70 524</b>	<b>67 812</b>	<b>58 592</b>

<sup>1</sup> Regulation 38 of the regulations relating to banks issued in terms of the Banks Act (Act No. 94 of 1990).

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](http://nedbank.co.za/content/nedbank/desktop/gt/en/aboutus/information-hub/capital-and-risk-management-reports.html).

## 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 reflects surplus AFR of R18,8bn (2015: R11,9bn) and R19,0bn (2015: R10,4bn) respectively, after a 10% capital buffer is added. This is determined in accordance with the group's comprehensive Stress and Scenario Testing Framework. The increase in surplus AFR during the period is primarily driven by organic earnings growth, low balance sheet growth as well as the issuance of new-style additional tier 1 (R2,0bn) and tier 2 (R2,0bn) capital instruments this year, in line with the group's capital plan.

Further details on Nedbank's risk types and economic capital methodology are reflected from page 30.

#### ECONOMIC CAPITAL REQUIREMENT VERSUS AVAILABLE FINANCIAL RESOURCES

	Nedbank Group				Nedbank Limited			
	2016		2015		2016		2015	
	Rm	Mix %	Rm	Mix %	Rm	Mix %	Rm	Mix %
Credit risk	35 211	65	35 015	66	30 804	70	30 480	70
Transfer risk	83	< 1	33	< 1	34	< 1	26	< 1
Market risk	8 356	15	7 829	15	5 291	12	4 923	11
Business risk	6 375	12	5 954	11	4 642	10	4 912	11
Operational risk	2 907	5	2 778	5	2 085	5	2 079	5
Insurance risk	370	1	341	< 1				
Other assets risk	1 053	2	1 401	3	1 430	3	1 277	3
<b>Minimum economic capital requirement</b>	<b>54 355</b>	<b>100</b>	<b>53 351</b>	<b>100</b>	<b>44 286</b>	<b>100</b>	<b>43 697</b>	<b>100</b>
Add: stress-tested capital buffer (10%)	5 436		5 335		4 429		4 370	
<b>Total economic capital requirement</b>	<b>59 791</b>		<b>58 686</b>		<b>48 715</b>		<b>48 067</b>	
<b>AFR</b>	<b>78 557</b>	<b>100</b>	<b>70 538</b>	<b>100</b>	<b>67 693</b>	<b>100</b>	<b>58 448</b>	<b>100</b>
<b>Tier A capital</b>	<b>63 626</b>	<b>81</b>	<b>59 234</b>	<b>84</b>	<b>52 762</b>	<b>78</b>	<b>47 144</b>	<b>81</b>
<b>Tier B capital</b>	<b>14 931</b>	<b>19</b>	<b>11 304</b>	<b>16</b>	<b>14 931</b>	<b>22</b>	<b>11 304</b>	<b>19</b>
<b>Total surplus AFR</b>	<b>18 766</b>		<b>11 852</b>		<b>18 978</b>		<b>10 381</b>	
<b>AFR/total economic capital requirement (%)</b>	<b>131</b>		<b>120</b>		<b>139</b>		<b>122</b>	

Nedbank Group's total economic capital requirement (including a 10% stress-tested buffer) increased by R1,1bn from 2015, largely as a result of:

- A R527m increase in market risk, specifically IRRBB economic capital, primarily due to organic balance sheet growth, resulting in increased NII sensitivity largely driven by endowment.
- A R421m increase in business risk economic capital, which was predominantly driven by parameter updates of the internal business risk model.

Nedbank Group's total AFR increased by R8,0bn from 2015 due to:

- A R4,4bn increase in tier A AFR, driven by organic earnings growth during the period.
- A R3,6bn increase in tier B AFR, following the issuance of new-style additional tier 1 and tier 2 capital instruments which were partially offset by the grandfathering of old-style preference shares of R373m.

Nedbank Limited's total economic capital requirement (including a 10% stress-tested buffer) increased by R648m from December 2015, mainly due to:

- A R368m increase in market risk, specifically IRRBB economic capital, for the same reasons as stated for group above.
- A R324m increase in credit risk economic capital, largely driven by strong asset growth and ratings migration due to the prevailing economic conditions particularly within the investment banking businesses. The increase in credit risk economic capital was partially offset by decreases in the RBB Cluster, resulting from the implementation of refined models specifically used for the internal assessment of credit risk economic capital.

Nedbank Limited's total AFR increased by R9,2bn from 2015 due to the same reasons as stated for group above.

#### ANALYSIS OF AVAILABLE FINANCIAL RESOURCES

Rm	Nedbank Group		Nedbank Limited	
	2016	2015	2016	2015
<b>Tier A capital</b>	<b>63 626</b>	<b>59 234</b>	<b>52 762</b>	<b>47 144</b>
Ordinary share capital and premium	18 521	18 046	19 221	18 571
Reserves	56 687	56 164	40 951	35 552
Deductions	(12 793)	(16 056)	(8 840)	(8 116)
Goodwill	(5 199)	(5 257)	(1 410)	(1 410)
Impairments	(415)	(325)	(1 106)	(1 467)
Investments in the common stock of financial entities (amount above 10% threshold) <sup>1</sup>	(514)	(5 017)		
Other deductions	(6 665)	(5 457)	(6 324)	(5 239)
Excess of IFRS provisions over TTC expected loss	1 211	1 080	1 430	1 137
<b>Tier B capital</b>	<b>14 931</b>	<b>11 304</b>	<b>14 931</b>	<b>11 304</b>
Preference shares	3 188	3 561	5 188	3 561
Tier 2 debt instruments <sup>2</sup>	9 743	7 743	9 743	7 743
Perpetual subordinated-debt instruments	2 000			
<b>Total AFR</b>	<b>78 557</b>	<b>70 538</b>	<b>67 693</b>	<b>58 448</b>

<sup>1</sup> Impairment to tier A capital in line with Basel III regulatory treatment as a result of Nedbank's investment in ETI and other financial entities breaching the 10% of CET1 capital threshold.

<sup>2</sup> Basel III-compliant new-style tier 2 subordinated-debt deemed sufficiently loss-absorbing to qualify as tier B AFR.

## External credit ratings

	Standard & Poor's		Moody's Investors Service	
	Nedbank Limited	Sovereign rating SA	Nedbank Limited	Sovereign rating SA
	Oct 2016	Dec 2016	Nov 2016	Nov 2016
<b>Outlook</b>	Negative	Negative	Negative	Negative
<b>Foreign currency deposit ratings</b>				
Long-term	BBB-	BBB-	Baa2	Baa2
Short-term	A-3	A-3	P-2	P-2
<b>Local currency deposit ratings</b>				
Long-term	BBB-	BBB-	Baa2	Baa2
Short-term	A-3	A-2	P-2	P-2
<b>National Scale Rating</b>				
Long-term deposits	zaAA-	zaAAA		
Short-term deposits	zaA-1	zaA-1		
<b>Counterparty risk assessment</b>				
Long-term			Aa1.za	
Short-term			P-1.za	



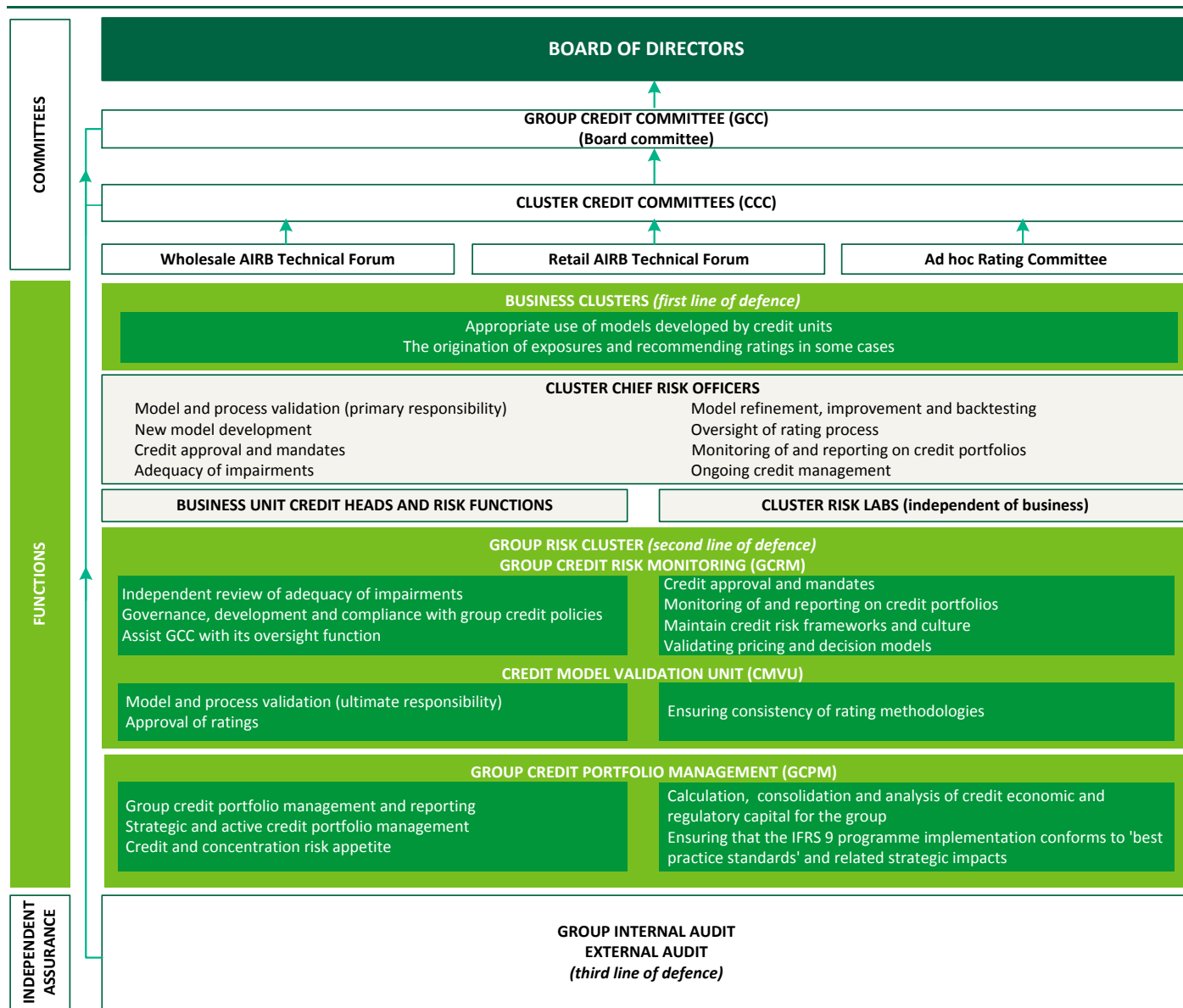
# Credit risk

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 74% 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 its board approved Group Credit Risk Monitoring Framework (GCRMF), which covers the macrostructures for credit risk management and incorporates selected excerpts from the 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 it is reviewed on a quarterly basis.

The GCRMF includes the two AIRB Approach technical forums (ie wholesale and retail) and a Group Credit Ad hoc Ratings Committee, which report into the GCC. Also included is the LEAC, whose function is the approval of credit applications in excess of the large exposure threshold, imposed by the Banks Act.

The GCC also acts as the designated committee appointed by the board to monitor, challenge and ultimately approve all material aspects of the group's AIRB rating and risk estimation systems and processes. The current membership includes five 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 also need to ensure the independence from the business units originating the credit in the bank of the Group Credit Risk Monitoring (GCRM), which includes the Credit Model Validation Unit (CMVU).

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 GCC in particular reviews the governance in respect of inter-company loans granted from 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 current balances as at 31 December 2016 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 bi-annually.

GCRM monitors the business units' credit portfolios, risk procedures, policies and credit standards, maintains the Group Credit Risk Framework and validates AIRB credit models. GCRM reports to executive management, CCC's 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 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.

CCCs, with chairpersons' independent of the business units and mainly from GCRM, exist for all business units 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 (CRAMs – CCCs in credit approval mode) are also chaired by GCRM to ensure the independence of the business. Each cluster has a cluster credit risk lab that is responsible for the ongoing design, implementation, business validation and performance of their 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 as well as risk and concentration appetite. GCPM runs the group's calculation, consolidation and analysis of credit economic and regulatory capital.

## Credit risk approaches across Nedbank

Nedbank Limited and Nedbank London branch make up 94% of the total credit extended by Nedbank Group and are on the AIRB Approach. Fairbairn Private Bank (UK), 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 utilise TSA.

## Roadmap of Nedbank's credit rating systems

The following table provides an overview of the group's credit risk profile by business line, major Basel III asset class and regulatory measurement methodology. Balance sheet credit exposure includes on-balance-sheet, repurchase and resale agreements and derivative exposure.

	Nedbank CIB Rm	Nedbank CIB excluding Property Finance Rm	Property Finance Rm	Nedbank RBB Rm	Nedbank Retail Rm	Nedbank Business Banking Rm	Nedbank Wealth Rm	Rest of Africa Rm	Centre Rm	Nedbank Group 2016				Nedbank Group 2015	
										Rm	Mix %	Change %	Risk weighting <sup>1</sup> %	Rm	Mix %
<b>AIRB Approach</b>	<b>429 034</b>	<b>292 895</b>	<b>136 139</b>	<b>292 217</b>	<b>227 249</b>	<b>64 968</b>	<b>18 656</b>	<b>111</b>	<b>52 148</b>	<b>792 166</b>	<b>89,4</b>	<b>2,9</b>	<b>36,2</b>	<b>769 803</b>	<b>89,8</b>
Corporate	177 588	136 645	40 943	14 008	562	13 446	1	111		191 708	21,6	(1,7)	40,6	195 067	22,8
Specialised lending – HVCRE <sup>2</sup>	6 524		6 524				37			6 561	0,7	(10,1)	110,0	7 295	0,9
Specialised lending – IPRE <sup>3</sup>	82 635		82 635	1 365		1 365	4 451			88 451	10,0	15,2	39,5	76 782	9,0
Specialised lending – project finance	23 571	23 571								23 571	2,7	19,1	45,5	19 793	2,3
SME – corporate	6 419	919	5 500	17 941		17 941	2 595			26 955	3,0	(7,4)	39,6	29 102	3,4
Public sector entities	22 280	22 280		281		281				22 561	2,5	38,5	46,6	16 291	1,9
Local governments and municipalities	8 497	8 497		1 051		1 051				9 548	1,1	(10,3)	14,1	10 641	1,2
Sovereign	47 721	47 721							52 143	99 864	11,3	18,1	3,2	84 581	9,9
Banks	53 220	53 172	48	1		1			5	53 226	6,0	(28,4)	30,1	74 306	8,7
Securities firms												(100,0)	23,6	164	< 0,1
Retail mortgage				109 956	104 691	5 265	9 735			119 691	13,5	3,8	30,4	115 266	13,4
Retail revolving credit				14 933	14 933		74			15 007	1,7	4,6	54,5	14 351	1,7
Retail – other				99 434	99 434		268			99 702	11,2	7,2	52,6	93 026	10,9
SME – retail	90	90		32 583	6 965	25 618	1 495			34 168	3,9	7,8	36,6	31 701	3,7
Securitisation exposure	489		489	664	664					1 153	0,1	(19,8)	60,0	1 437	0,1
<b>The Standardised Approach<sup>4</sup></b>				<b>2 463</b>	<b>1 952</b>	<b>511</b>	<b>22 185</b>	<b>29 056</b>		<b>53 704</b>	<b>6,1</b>	<b>6,8</b>	<b>51,6</b>	<b>50 266</b>	<b>5,9</b>
Corporate							9	6 185		6 194	0,7	50,4	98,1	4 119	0,5
SME – corporate				670	494	176	1 072			1 742	0,2	(53,9)	52,2	3 778	0,4
Public sector entities								645		645	0,1	65,8	47,9	389	< 0,1
Local government and municipalities								37		37	< 0,1	(35,4)	70,4	58	< 0,1
Sovereign							3 959	5 985		9 944	1,1	45,8	72,3	6 818	0,8
Banks							11 474	3 293		14 767	1,7	(11,4)	19,8	16 667	1,9
Retail mortgage				1 782	1 458	324	4 962	5 801		12 545	1,4	(6,0)	50,7	13 348	1,6
Retail revolving credit								1 521		1 521	0,2	> 100,0	68,3	351	< 0,1
Retail – other				6		6	709	3 460		4 175	0,5	(11,6)	59,3	4 724	0,6
SME – retail				5		5		2 129		2 134	0,2	> 100,0	67,5	14	< 0,1
<b>Properties in possession</b>	<b>94</b>		<b>94</b>	<b>92</b>	<b>89</b>	<b>3</b>	<b>38</b>	<b>26</b>		<b>250</b>	<b>&lt; 0,1</b>	<b>(29,4)</b>		<b>354</b>	<b>&lt; 0,1</b>
<b>Non-regulated entities</b>	<b>34 831</b>	<b>34 831</b>		<b>2 832</b>	<b>2 831</b>	<b>1</b>	<b>2 410</b>		<b>263</b>	<b>40 336</b>	<b>4,6</b>	<b>1,0</b>		<b>36 949</b>	<b>4,3</b>
<b>Total Basel III balance sheet exposure<sup>5</sup></b>	<b>463 959</b>	<b>327 726</b>	<b>136 233</b>	<b>297 604</b>	<b>232 121</b>	<b>65 483</b>	<b>43 289</b>	<b>29 193</b>	<b>52 411</b>	<b>886 456</b>	<b>100,0</b>	<b>3,4</b>		<b>857 372</b>	<b>100,0</b>
Less: Assets included in Basel III asset classes	(85 394)	(86 150)	756	1 235	1 348	(113)	(14 558)	(9 188)	(53 074)	(160 979)				(159 623)	
Derivatives	(19 037)	(19 037)					(26)	(56)	(5)	(19 124)				(37 443)	
Government stock and other dated securities	(34 690)	(34 690)						(5 985)	(19 166)	(59 841)				(46 927)	
Short-term securities	(31 598)	(31 598)					(15 603)		(33 184)	(80 385)				(76 339)	
Call money															
Deposits with monetary institutions															
Remittances in transit	1	1		181	175	6	(1)	189		370				201	
Fair-value adjustments	801	628	173	(66)	15	(81)				735				1 094	
Other assets net of fair-value adjustments on assets	(871)	(1 454)	583	1 120	1 158	(38)	1 072	(3 336)	(719)	(2 734)				(209)	
Setoff of accounts within IFRS total gross loans and advances <sup>6</sup>	(6 201)	(6 201)		(50)		(50)				(6 251)				(4 706)	
<b>Total gross loans and advances – 2016</b>	<b>372 364</b>	<b>235 375</b>	<b>136 989</b>	<b>298 789</b>	<b>233 469</b>	<b>65 320</b>	<b>28 731</b>	<b>20 005</b>	<b>(663)</b>	<b>719 226</b>				<b>693 043</b>	
<b>Total gross loans and advances – 2015</b>	<b>357 519</b>	<b>234 723</b>	<b>122 796</b>	<b>288 601</b>	<b>222 429</b>	<b>66 172</b>	<b>28 361</b>	<b>16 883</b>	<b>1 679</b>	<b>693 043</b>					

<sup>1</sup> Risk weighting is shown as a percentage of EAD for the AIRB Approach and as a percentage of total credit extended for TSA.

<sup>2</sup> High-volatility commercial real estate.

<sup>3</sup> Income-producing real estate.

<sup>4</sup> A portion of the legacy Imperial Bank book in Nedbank RBB, Nedbank Private Wealth (UK) and the non-SA banking entities in Africa are covered by TSA.

<sup>5</sup> Balance sheet credit exposure includes on-balance-sheet, repurchase and resale agreements and derivative exposure.

<sup>6</sup> Relates to the difference in the level of setoff applied under IFRS when compared with the setoff applied to the balance sheet credit exposure under Basel III.

The growth in AIRB exposure was driven by:

- An increase in total exposure to wholesale asset classes by 1,6% to R523 598m (2015: R515 297m) was largely driven by growth in government bonds in the sovereign asset class (R13 016m) and commercial mortgages (R13 587m). This was offset by a decrease of R17 341m from derivatives largely driven by valuation of foreign exchange and interest rate products attributable to the relative strengthening of the rand against major currencies and a slight flattening of the yield curves and a R8 704m in call accounts.
- An increase in total retail exposure by 5,6% to R268 568m (2015: R254 344m) was mainly due to growth in Motor Finance Corporation (MFC), Card and residential mortgages.

The increase in TSA exposure is mainly due to advances growth in the African subsidiaries.

## Loans and advances

- Despite the unfavourable economic environment, Nedbank Group's gross loans and advances grew by 3,8% to R719 226m (2015: R693 043m), driven by Nedbank CIB, Nedbank Retail and consolidation of our acquisition of Banco Único from October 2016.
- Nedbank CIB gross loans and advances increased by 4,2% to R372 364m (2015: R357 519m) comprising a 4,3% increase in the banking book and a 2,9% increase in the trading book to R35 085m (2015: R34 085m).
  - Gross banking book advances grew to R337 278m (2015: R323 434m) as a result of good pipeline conversion rates across sector-focused businesses driven by our long-term investment banking activities.
    - Nedbank Property Finance grew by 11,6% to R136 989m (2015: R122 796m) and maintained its dominant local market share position. The portfolio contains good-quality assets, high levels of collateral, a low average (LTV) and a highly experienced management team who are market leaders in property finance in SA.
- Nedbank RBB gross loans and advances grew by 3,5% to R298 789m (2015: R288 601m).
  - Nedbank Retail gross loans and advances grew by 5,0% to R233 469m (2015: R222 429m) due to continued selective origination strategies targeting low-risk economically profitable clients. Consequently MFC and Card gained market share within the current risk appetite. Further innovations were undertaken to enable sustainable growth within the current risk appetite, while improving client experience and assisting in growing our main-banked transactional franchise.
    - Despite the current slowdown in growth across the vehicle finance sector, MFC's gross loans and advances grew by 7,7% to R85 090m (2015: R78 975m) due to its leading position in the secondhand and affordable-vehicle markets.
    - Personal Loans gross loans and advances grew by 7,2% to R17 468m (2015: R16 300m) due to improving sales effectiveness and productivity, increased marketing presence as well as an improved onboarding process.
    - Card grew by 6,3% to R14 848m (2015: R13 968m), which is above the industry average.
    - Home Loans gross loans and advances grew by 2,2% to R83 441m (2015: R81 613m), with loans and advances to clients increasing by 1,8% due to the use of our easy-to-use online application process, which has been enhanced to include building and development loans.
  - Nedbank Business Banking gross loans and advances decreased by 1,3% to R65 320m (2015: R66 172m) due to a tough economic environment as evidenced by lower business confidence and the migration of clients to the Nedbank CIB and Relationship Banking businesses.
- Nedbank Rest of Africa grew by 18,5% to R20 005m (2015: R16 883m). This was due to growth in all subsidiaries, with the rollout of new products and focused growth strategies for all the countries, and the inclusion of Banco Único, which contributed R2bn to the portfolio. Excluding Banco Único, the growth in Nedbank Rest of Africa was 6,6%.

### CR1: CREDIT QUALITY OF ASSETS

2016 Rm	Gross carrying values of		Allowances/ impairments	Net values
	Defaulted exposures	Non-defaulted exposures		
1 Loans	19 553	701 518	12 149	708 922
2 Debt securities		114 089		114 089
3 Off-balance sheet exposures		176 756		176 756
<b>4 Total</b>	<b>19 553</b>	<b>992 363</b>	<b>12 149</b>	<b>999 767</b>
<b>2015</b>				
1 Loans	17 559	641 551	11 004	648 106
2 Debt securities		98 779		98 779
3 Off-balance sheet exposures		183 578		183 578
<b>4 Total</b>	<b>17 559</b>	<b>923 908</b>	<b>11 004</b>	<b>930 463</b>

The table below shows a breakdown of the Nedbank Group banking book off-balance-sheet exposure by cluster and product at the end of 2016.

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

2016 Rm	Nedbank CIB	CIB excluding Property Finance	Property Finance	Total Nedbank RBB	Nedbank Business Banking	Nedbank Retail	Nedbank Wealth	Rest of Africa	Centre	Nedbank Group
Guarantees on behalf of clients	39 762	38 892	870	2 858	2 343	515	282	1 463		44 365
Letters of credit	2 952	2 952		389	338	51		51		3 392
Undrawn facilities	74 062	69 664	4 398	64 202	22 000	42 202	5 450	4 082	2	147 798
Of which irrevocable commitments	62 952	58 554	4 398	22 000	22 000		2 531	1 874	2	89 359
Of which revocable <sup>2</sup>	11 110	11 110		42 202		42 202	2 919	2 208		58 439
Credit-derivative instruments	4 732	4 732								4 732
<b>Total off-balance-sheet activities</b>	<b>121 508</b>	<b>116 240</b>	<b>5 268</b>	<b>67 449</b>	<b>24 681</b>	<b>42 768</b>	<b>5 732</b>	<b>5 596</b>	<b>2</b>	<b>200 286</b>

2015 Rm	Nedbank CIB	CIB excluding Property Finance	Property Finance	Total Nedbank RBB	Nedbank Business Banking	Nedbank Retail	Nedbank Wealth	Rest of Africa	Centre	Nedbank Group
Guarantees on behalf of clients	42 424	41 366	1 058	3 216	2 670	546	304	1 202		47 146
Letters of credit	3 911	3 911		477	455	22		75		4 463
Undrawn facilities	79 708	75 904	3 804	63 218	21 389	41 829	5 900	3 216	206	152 248
Of which irrevocable commitments	67 782	63 978	3 804	21 389	21 389		2 989	2 133	50	94 343
Of which revocable <sup>2</sup>	11 926	11 926		41 829		41 829	2 911	1 083	156	57 905
Credit-derivative instruments	4 815	4 815								4 815
Total off-balance-sheet activities	130 858	125 996	4 862	66 911	24 514	42 397	6 204	4 493	206	208 672

<sup>1</sup> Values include intercompany exposures.

<sup>2</sup> Includes other contingent liabilities.

## Defaulted advances

- Nedbank Group defaulted advances increased by 11,4% to R19 553m (2015: R17 559m), which was attributable to a combination of the new curing definition and continued adverse economic conditions. This resulted in the group defaulted advances as a percentage of group gross loans increasing to 2,72% (2015: 2,53%).
  - The implementation of the SARB driven new curing definition in our lending products impacted the classification of loans in Nedbank Retail, where we now hold an account in default for six months from the date on which the account originally cures. Although the new curing definition had a negative effect on defaulted advances, it provides a more conservative approach to risk management in the portfolio and does not impact the overall levels of impairments.
  - SARB directive 7/2015 was included in the comparative figures and incorporated in the numbers as BaU since 2015. This resulted in distressed cured defaulted accounts having been kept in defaulted status for six months after curing, instead of the previous three months.

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

Rm	2016	2015
<b>1 Defaulted loans and debt securities at end of the previous reporting period</b>	<b>17 559</b>	15 846
2 Loans and debt securities that have defaulted since the last reporting period	21 617	20 369
3 Returned to non-defaulted status	(11 948)	(9 485)
4 Amounts written off	(5 177)	(6 124)
5 Other changes	(2 498)	(3 047)
<b>6 Defaulted loans and debt securities at end of the reporting period</b>	<b>19 553</b>	17 559

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.

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 loss 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.
- It becoming probable that the borrower will enter bankruptcy or other financial reorganisation.
- The disappearance of an active market for that financial asset because of financial difficulties.
- Observable data indicating 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.

Specific impairments are raised against those loans identified as impaired and where there is objective evidence after initial recognition that all amounts due will not be collected.

Portfolio impairments are recognised in respect of performing advances based on historical evidence and trends of losses in each component of the performing portfolio. Portfolio impairments are recognised against loans and advances classified as 'past due' or 'neither past due nor impaired'. A loan or advance is considered to be 'past due' when it exceeds its limit for an extended period or is in arrears.

## NEDBANK GROUP KEY DEFAULTED ADVANCES METRICS

	2012	2013	2014	2015	2016
<b>Gross loans and advances (Rm)</b>	538 036	590 828	624 116	693 043	<b>719 226</b>
<b>Defaulted advances (Rm) of which<sup>1</sup>:</b>	19 273	17 848	15 846	17 559	<b>19 553</b>
Nedbank CIB	3 544	3 406	2 759	4 074	<b>4 176</b>
Nedbank RBB	15 046	13 736	12 266	12 263	<b>14 235</b>
<b>Defaulted advances as a % of gross loans and advances (%) of which<sup>1</sup>:</b>	3,58	3,02	2,54	2,53	<b>2,72</b>
Nedbank CIB	1,99	1,64	1,30	1,45	<b>1,12</b>
Nedbank RBB	6,27	5,60	4,83	4,59	<b>4,76</b>
<b>Properties in possession as a % of total gross loans and advances (%)</b>	0,11	0,13	0,10	0,05	<b>0,03</b>

<sup>1</sup> Only Nedbank clusters that contribute significantly to defaulted advances are reflected.

## NEDBANK GROUP DEFAULTED ADVANCES BY BUSINESS CLUSTER

	2012			2013			2014			2015			2016		
	Rm	NPL ratio	Mix %	Rm	NPL ratio	Mix %	Rm	NPL ratio	Mix %	Rm	NPL ratio	Mix %	Rm	NPL ratio	Mix %
<b>Nedbank CIB</b>	3 544	1,58	18,4	3 406	1,42	19,1	2 759	1,03	17,4	4 074	1,14	23,2	<b>4 176</b>	<b>1,1</b>	<b>21,4</b>
Nedbank CIB excluding Property Finance	976	0,60	5,1	1 389	0,72	7,8	950	0,48	6,0	2 636	1,12	15,0	<b>2 815</b>	<b>1,2</b>	<b>14,4</b>
Property Finance	2 568	3,05	13,3	2 017	2,16	11,3	1 809	1,65	11,4	1 438	1,17	8,2	<b>1 361</b>	<b>1,0</b>	<b>7,0</b>
<b>Nedbank RBB</b>	15 046	5,79	78,1	13 736	5,13	77,0	12 266	4,41	77,4	12 263	4,25	69,8	<b>14 235</b>	<b>4,8</b>	<b>72,8</b>
Nedbank Business Banking	2 597	4,23	13,5	2 334	3,64	13,1	2 087	3,11	13,2	2 059	3,11	11,7	<b>2 142</b>	<b>3,3</b>	<b>11,0</b>
Nedbank Retail <sup>1</sup>	12 449	6,27	64,6	11 402	5,60	63,9	10 179	4,83	64,2	10 204	4,59	58,1	<b>12 093</b>	<b>5,2</b>	<b>61,8</b>
Home Loans <sup>2</sup>	6 242	7,38	32,4	4 746	5,84	26,6	4 053	5,01	25,6	3 869	4,74	22,0	<b>4 880</b>	<b>5,9</b>	<b>25,0</b>
MFC	1 707	2,99	8,9	1 933	2,95	10,8	1 898	2,58	12,0	2 182	2,76	12,4	<b>2 539</b>	<b>3,0</b>	<b>13,0</b>
Personal Loans <sup>3</sup>	2 607	11,74	13,5	2 828	14,05	15,8	2 502	14,65	15,8	2 297	14,09	13,1	<b>2 423</b>	<b>13,9</b>	<b>12,4</b>
Card	614	6,19	3,2	824	7,26	4,6	892	6,68	5,6	1 072	7,67	6,1	<b>1 323</b>	<b>8,9</b>	<b>6,8</b>
<b>Nedbank Wealth</b>	555	2,78	2,9	525	2,36	2,9	599	2,40	3,8	587	2,07	3,4	<b>608</b>	<b>2,1</b>	<b>3,1</b>
<b>Rest of Africa</b>	128	1,01	0,6	181	1,22	1,0	222	1,56	1,4	635	3,76	3,6	<b>534</b>	<b>2,6</b>	<b>2,7</b>
<b>Nedbank Group</b>	19 273	3,58	100,0	17 848	3,02	100,0	15 846	2,54	100,0	17 559	2,53	100,0	<b>19 553</b>	<b>2,7</b>	<b>100,0</b>

<sup>1</sup> Only Nedbank Retail business units that contribute significantly to defaulted advances are reflected.

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

<sup>3</sup> Personal Loans represents a specific business unit within Nedbank Retail.

## AGE ANALYSIS OF LOANS AND ADVANCES

Nedbank Group Rm	Total		< 1 month		> 1 month < 3 months		> 3 months < 6 months		> 6 months < 12 months		> 12 months	
	2016	2015	2016	2015	2016	2015	2016	2015	2016	2015	2016	2015
<b>Neither past due nor impaired<sup>1</sup></b>	<b>678 903</b>	<b>655 318</b>	<b>678 903</b>	<b>655 318</b>								
Mortgage loans	277 764	261 422	277 764	261 422								
Net finance lease and instalment debtors	96 425	91 855	96 425	91 855								
Card	12 413	11 838	12 413	11 838								
Overdrafts	17 302	14 493	17 302	14 493								
Term loans	117 403	105 230	117 403	105 230								
Overnight loans	21 913	27 527	21 913	27 527								
Other loans to clients	95 175	96 974	95 175	96 974								
Preference shares and debentures	20 078	20 698	20 078	20 698								
Factoring accounts	4 762	5 102	4 762	5 102								
Deposits placed under reverse repurchase agreements	15 654	20 173	15 654	20 173								
Trade, other bills and bankers' acceptances	14	6	14	6								
<b>Past due but not impaired<sup>2</sup></b>	<b>20 770</b>	<b>20 166</b>	<b>13 111</b>	<b>12 490</b>	<b>7 635</b>	<b>7 632</b>	<b>22</b>	<b>44</b>	<b>1</b>		<b>1</b>	
Mortgage loans	10 535	10 848	7 570	7 385	2 954	3 430	11	33				
Net finance lease and instalment debtors	6 127	5 386	2 894	2 660	3 231	2 720	2	6				
Card	1 120	1 141	768	784	352	357						
Overdrafts	794	645	751	571	38	69	5	5				
Term loans	1 848	1 704	799	655	1 044	1 049	4		1			
Overnight loans												
Other loans to clients	126	280	112	276	13	4					1	
Factoring accounts	220	162	217	159	3	3						
<b>Subtotal</b>	<b>699 673</b>	<b>675 484</b>	<b>692 014</b>	<b>667 808</b>	<b>7 635</b>	<b>7 632</b>	<b>22</b>	<b>44</b>	<b>1</b>		<b>1</b>	
<b>Defaulted<sup>3</sup></b>	<b>19 553</b>	<b>17 559</b>										
Mortgage loans	8 717	7 293										
Net finance lease and instalment debtors	2 929	2 617										
Card	1 337	1 084										
Properties in possession	250	354										
Overdrafts	775	697										
Term loans	2 834	3 388										
Other loans to clients	2 683	2 061										
Factoring accounts	28	65										
<b>Total gross loans and advances</b>	<b>719 226</b>	<b>693 043</b>										

<sup>1</sup> The 'neither past due nor impaired' loans refers to all loans that are current or the '< 1 month' bucket.

<sup>2</sup> For the 'past due but not impaired' loans, the balances reflected in all buckets '> 1 month' relate to the ageing of the missed contractual payments and include both capital and interest portions. This is in line with IFRS 7.

<sup>3</sup> The defaulted loans category is aligned to Basel standards and the group's more than 90 days definition of default, and hence includes defaulted loans which have no specific impairments raised.



**BASEL III AIRB ON-BALANCE-SHEET EXPOSURE BY RESIDUAL CONTRACTUAL MATURITY<sup>1</sup>**

2016 Rm	Less than 1 year	1 to 5 years	Greater than 5 years	Total on-balance- sheet exposure
Corporate <sup>2</sup>	87 903	176 641	85 957	350 501
Public sector entities	3 834	7 074	7 823	18 731
Local governments and municipalities	60	2 431	6 548	9 039
Sovereign	56 988	9 703	33 122	99 813
Banks	21 496	13 177	229	34 902
Retail exposure	3 652	98 241	167 040	268 933
Retail mortgage	223	1 355	118 550	120 128
Retail revolving credit		15 008		15 008
Retail – other	2 271	65 635	31 796	99 702
SME – retail	1 158	16 243	16 694	34 095
Securitisation exposure		489	664	1 153
<b>Total</b>	<b>173 933</b>	<b>307 756</b>	<b>301 383</b>	<b>783 072</b>
<b>2015</b>				
Corporate <sup>1</sup>	89 901	171 706	78 283	339 890
Public sector entities	2 944	7 131	4 244	14 319
Local governments and municipalities	273	2 301	6 831	9 405
Sovereign	54 778	7 160	22 505	84 443
Banks	15 961	18 061	155	34 177
Retail exposure	3 227	92 207	159 458	254 892
Retail mortgage	290	1 261	114 291	115 842
Retail revolving credit		14 351		14 351
Retail – other	1 962	61 204	29 861	93 027
SME – retail	975	15 391	15 306	31 672
Securitisation exposure	773		664	1 437
<b>Total</b>	<b>167 857</b>	<b>298 566</b>	<b>272 140</b>	<b>738 563</b>

<sup>1</sup> Includes corporate, SME – corporate and specialised lending asset classes.

The Nedbank Limited TSA Basel III on-balance-sheet exposure below relates to the remaining of the legacy Imperial Bank (ie in Nedbank Business Banking), Fairbairn and the African subsidiaries.

**BASEL III TSA ON-BALANCE-SHEET EXPOSURE BY RESIDUAL CONTRACTUAL MATURITY<sup>1</sup>**

2016 Rm	Less than 1 year	1 to 5 years	Greater than 5 years	Total on-balance- sheet exposure
Corporate <sup>2</sup>	2 389	3 052	961	6 402
Public sector entities	8	326	97	431
Local Governments and Municipalities	1	27	12	40
Sovereign	5 034	3 922		8 956
Banks	12 629	3 801		16 430
Retail exposure	5 871	5 645	8 273	19 789
Retail mortgage	4 983	190	7 388	12 561
Retail revolving credit	33	1 270	218	1 521
Retail – other	814	3 068	130	4 012
SME – retail	41	1 117	537	1 695
<b>Total</b>	<b>25 932</b>	<b>16 773</b>	<b>9 343</b>	<b>52 048</b>

<sup>1</sup> This table has been enhanced to include non-Nedbank Limited TSA exposures for 2016.

<sup>2</sup> Includes corporate, SME – corporate and specialised lending asset classes.

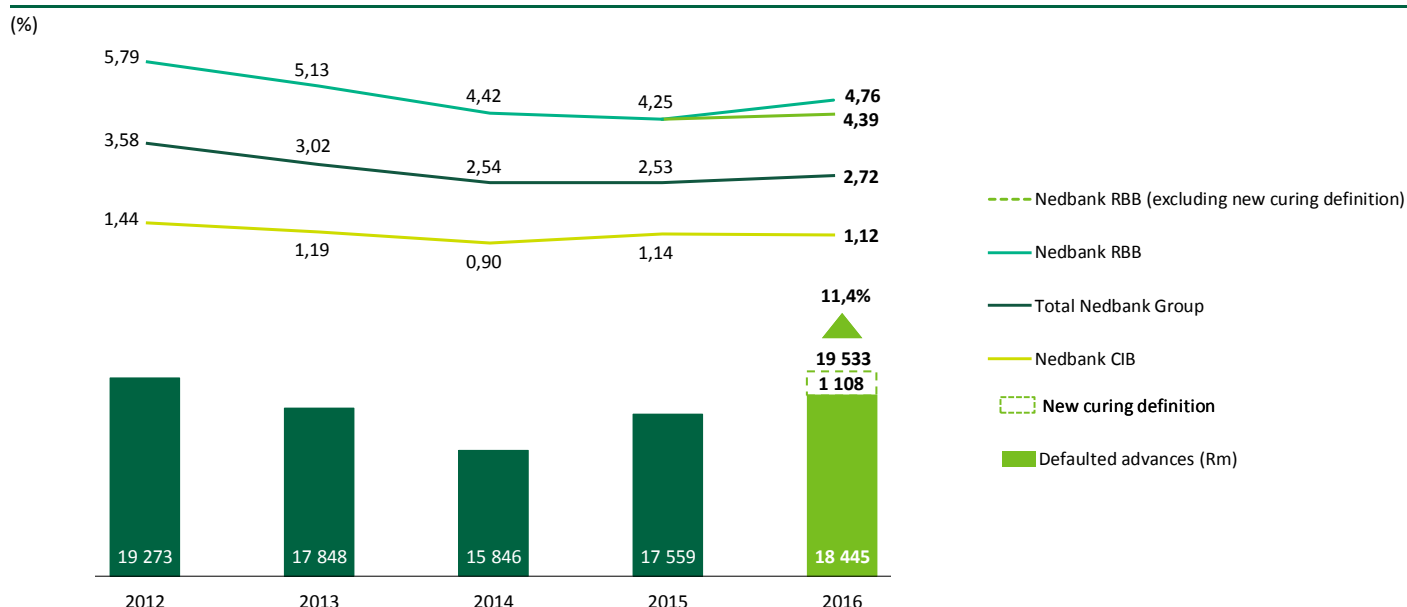
## DEFAULTED ADVANCES BY GEOGRAPHICAL AREA

Rm	On-balance-sheet exposure	
	2016	2015
South Africa	16 718	15 674
Rest of Africa	875	1 719
Rest of World	1 960	166
<b>Total</b>	<b>19 553</b>	<b>17 559</b>

## DEFAULTED ADVANCES BY INDUSTRY

Rm	On-balance-sheet exposure	
	2016	2015
Agriculture, Hunting, Forestry and Fishing	312	138
Community, Social and Personal Services	60	162
Construction	114	189
Electricity, Gas and Water Supply	1 198	10
Financial Intermediation, Insurance, Real Estate and Business Services	2 194	3 801
Manufacturing	276	206
Mining and Quarrying	264	758
Private Households, Extraterritorial Organisations, Representatives of Foreign Governments and Other	13 817	11 973
Transport, Storage and Communication	751	166
Wholesale And Retail Trade; Repair Of Motor Vehicles, Motor Cycles And Personal and Household Goods; Hotels and Restaurants	567	156
<b>Total</b>	<b>19 553</b>	<b>17 559</b>

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



## Debt counselling

The portfolio balance increased by 19,7% to R7 356m (2015: R6 143m) and the number of accounts in debt counselling increased by 11,2% to 117 198 (2015: 105 294). 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

Product	New applications				Portfolio balance			
	2016		2015		2016		2015	
	Number of accounts	Exposure Rm	Number of accounts	Exposure Rm	Number of accounts	Exposure Rm	Number of accounts	Exposure Rm
Mortgages	2 180	887	2 156	762	6 013	2 310	5 327	1 980
Vehicle and asset finance	8 721	1 221	8 489	1 117	23 297	2 835	19 259	2 185
Personal loans	23 888	873	21 986	804	45 601	1 652	41 592	1 504
Card	22 263	307	20 397	295	37 998	533	33 924	447
Overdrafts	3 889	20	8 455	22	4 219	27	5 192	27
<b>Total</b>	<b>60 941</b>	<b>3 308</b>	<b>61 483</b>	<b>3 000</b>	<b>117 128</b>	<b>7 357</b>	<b>105 294</b>	<b>6 143</b>

**Defaulted advances, specific impairments and specific coverage ratio by business cluster and product**

	2016								2015							
	Defaulted loans and advances		Expected recoveries	Specific impairments				Specific coverage ratio	Defaulted loans and advances		Expected recoveries	Specific impairments				Specific coverage ratio
	Rm	as % of total	Rm	Rm	as % of total	on defaulted advances	for discounted cashflow losses	%	Rm	as % of total	Rm	Rm	as % of total	on defaulted advances	for discounted cashflow losses	%
<b>Nedbank CIB</b>	4 176	21,4	3 080	1 096	15,0	755	342	26,2	4 074	23,2	3 378	696	10,4	396	300	17,1
<b>Nedbank CIB excluding Property Finance</b>	2 815	14,4	2 004	811	11,1	654	158	28,8	2 636	15,0	2 282	354	5,0	282	72	13,4
Leases and instalment debtors									4	< 0,1	1	3	< 0,1	3		75,0
Other loans and advances	2 815	14,4	2 004	811	11,1	654	158	28,8	2 632	15,0	2 281	351	5,0	279	72	13,3
<b>Property Finance</b>	1 361	7,0	1 076	285	3,9	101	184	20,9	1 438	8,2	1 096	342	5,1	114	228	23,8
Commercial mortgages	1 267	6,5	982	285	3,9	101	184	22,5	1 228	7,0	886	342	5,1	114	228	27,9
Properties in possession	94	0,5	94						210	1,2	210					
<b>Nedbank RBB</b>	14 235	72,8	8 380	5 855	80,0	5 103	754	41,1	12 263	69,8	6 665	5 598	84,0	4 956	642	45,6
<b>Nedbank Business Banking</b>	2 142	11,0	1 337	805	11,0	580	226	37,6	2 059	11,7	1 226	833	12,5	644	189	40,5
Residential mortgages	831	4,4	616	215	2,9	122	93	25,9	777	4,5	576	201	3,0	122	79	25,9
Commercial mortgages	476	2,4	372	104	1,4	30	74	21,8	373	2,1	297	76	1,1	25	51	20,4
Leases and instalment debtors	250	1,3	92	158	2,2	141	17	62,9	305	1,7	108	197	3,0	182	15	64,6
Cards	7	< 0,1		7	0,1	7		100,0	7	< 0,1		7	0,1	7		100,0
Properties in possession	3	< 0,1	3						5	< 0,1	5					
Other loans and advances	575	2,9	254	321	4,4	280	42	56,0	592	3,4	240	352	5,3	308	44	59,5
<b>Nedbank Retail</b>	12 093	61,8	7 043	5 050	69,0	4 523	528	41,8	10 204	58,1	5 439	4 765	71,5	4 312	453	46,7
Residential mortgages	5 419	27,7	4 308	1 111	15,2	906	205	20,5	4 258	24,2	3 163	1 095	16,4	938	157	25,7
Commercial mortgages	36	0,2	23	13	0,2	11	2	36,1	29	0,2	16	13	0,2	12	1	44,8
Leases and instalment debtors	2 589	13,2	1 613	976	13,3	899	77	37,7	2 234	12,8	1 344	890	13,4	824	66	39,8
Cards	1 323	6,8	162	1 161	15,9	1 147	14	87,8	1 072	6,1	46	1 026	15,4	1 017	9	95,7
Personal loans	2 423	12,4	839	1 584	21,6	1 355	229	65,4	2 297	13,1	765	1 532	23,0	1 313	219	66,7
Properties in possession	89	0,4	89						96	0,5	96					
Other loans and advances	214	1,1	9	205	2,8	205	1	95,8	218	1,2	9	209	3,1	208	1	95,9
<b>Nedbank Wealth</b>	608	3,1	494	118	1,6	(4)	118	19,4	587	3,3	465	122	1,8		122	20,8
Residential mortgages	371	1,9	299	76	1,0	(45)	118	20,5	390	2,2	302	88	1,3	(34)	122	22,6
Commercial mortgages	177	0,9	143	34	0,5	34		19,3	136	0,8	111	25	0,4	25		18,4
Leases and instalment debtors	10		9	1	< 0,1			10,4	11	0,1	9	2	< 0,1	2		18,2
Properties in possession	38	0,2	38						43	0,2	43					
Other loans and advances	12	0,1	5	7	0,1	7		59,0	7	< 0,1		7	0,1	7		100,0
<b>Rest of Africa</b>	534	2,7	289	245	3,4	27	215	45,9	635	3,7	371	264	4,0	105	159	41,6
Residential mortgages	134	0,7	103	31	0,4	(14)	45	23,1	101	0,6	80	21	0,3	(8)	29	20,8
Commercial mortgages	6	0,0	2	4	0,1	(11)	15	61,8	1	< 0,1	1			(12)	12	
Leases and instalment debtors	79	0,4	36	43	0,6	5	38	54,2	63	0,4	29	34	0,5	2	32	54,0
Cards	7	< 0,1	1	6	0,1		6	85,4	5	< 0,1	2	3	< 0,1		3	60,0
Personal loans	54	0,3	20	34	0,5	8	26	63,4	44	0,3	15	29	0,5	4	25	65,9
Properties in possession	26	0,1	26													
Other loans and advances	228	1,2	101	127	1,7	39	85	55,8	421	2,4	244	177	2,7	119	58	42,0
<b>Centre</b>		< 0,1	(3)	3	< 0,1						16	(16)	(0,2)	(16)		
Other loans and advances		< 0,1	(3)	3	< 0,1						16	(16)	(0,2)	(16)		
<b>Nedbank Group</b>	19 553	100,0	12 236	7 317	100,0	5 882	1 429	37,4	17 559	100,0	10 895	6 664	100,0	5 441	1 223	38,0
Residential mortgages	6 755	34,5	5 322	1 433	19,6	969	461	21,2	5 526	31,5	4 121	1 405	21,0	1 018	387	25,4
Commercial mortgages	1 962	10,0	1 522	440	6,0	165	275	22,4	1 767	10,1	1 311	456	6,8	164	292	25,8
Leases and instalment debtors	2 928	15,0	1 750	1 178	16,1	1 046	132	40,2	2 617	15,0	1 491	1 126	16,9	1 013	113	43,1
Cards	1 337	6,8	163	1 174	16,1	1 154	20	87,8	1 084	6,1	48	1 036	15,5	1 024	12	95,5
Personal loans	2 477	12,7	859	1 618	22,1	1 363	255	65,3	2 341	13,4	780	1 561	23,5	1 317	244	66,7
Properties in possession	250	1,3	250						354	1,9	354					
Other loans and advances	3 844	19,7	2 370	1 474	20,1	1 185	286	38,3	3 870	22,0	2 790	1 080	16,3	905	175	27,9

## Credit risk mitigation

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

The Group Credit Policy acknowledges the role played by credit risk mitigation 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 its 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 credit risk mitigation 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 exposures being 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 are either unsecured or secured by guarantees suretyships or pledged securities.
- Wholesale portfolio
  - Commercial properties are supported by the property financed and a cession of the leases.
  - Instalment credit type of transactions that are secured by the assets financed.
  - Working capital facilities when secured, usually by either a claim on specific assets (fixed assets, inventory and debtors) or other collateral such as guarantees.
  - Term and structured lending which usually relies on guarantees or credit derivatives (where only internationally recognised and enforceable agreements are used).
  - Credit exposure to other banks where the risk is commonly mitigated through the use of 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; published data 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 bi-annually on the defaulted book. Physical valuations are performed on approximately 50% of new applications. The remainder of new applications are valued using desktop valuations and these 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 SME – retail and Retail – other asset classes. 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 banks 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**

2016 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
1 Loans	296 879	412 043	399 579	17 205	11 007		
2 Debt securities	114 089						
<b>3 Total</b>	<b>410 968</b>	<b>412 043</b>	<b>399 579</b>	<b>17 205</b>	<b>11 007</b>		
4 Of which defaulted	3 295	8 546	8 413				
<b>2015</b>							
1 Loans	256 127	391 979	387 573	21 395	21 395		
2 Debt securities	98 779						
<b>3 Total</b>	<b>354 906</b>	<b>391 979</b>	<b>387 573</b>	<b>21 395</b>	<b>21 395</b>		
4 Of which defaulted	2 568	6 938	6 938				

Growth in exposures secured by collateral 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), 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**

2016 Asset classes	Exposures before CCF <sup>1</sup> and CRM <sup>2</sup>		Exposures post-CCF and CRM		RWA <sup>3</sup> and RWA density	
	On-balance sheet amount Rm	Off-balance sheet amount Rm	On-balance sheet amount Rm	Off-balance sheet amount Rm	RWA Rm	RWA density %
1 Sovereigns and their central banks	9 944		9 944		7 188	72,28
2 Non-central government public sector entities	682	86	466	86	376	68,12
3 Multilateral development banks						
4 Banks	14 767	26	14 767	26	4 575	30,93
5 Securities firms						
6 Corporates	7 936	4 203	7 936	3 542	11 047	96,24
7 Regulatory retail portfolios	7 830	2 032	7 788	1 247	6 282	69,53
8 Secured by residential property	12 545	1 221	12 545	1 221	6 981	50,71
9 Secured by commercial real estate						
10 Equity						
11 Past-due loans						
12 Higher-risk categories						
13 Other assets	1 578		1 578		727	46,07
<b>14 Total</b>	<b>55 282</b>	<b>7 568</b>	<b>55 024</b>	<b>6 122</b>	<b>37 176</b>	<b>60,80</b>

<sup>1</sup> CCF = Credit conversion factor.

<sup>2</sup> CRM = Credit risk mitigation.

<sup>3</sup> Total RWA includes Counterparty Credit Risk RWA.

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

2016 (Rm) Asset classes		Risk weight									Total credit exposures amount (post CCF and post-CRM)
		0%	10%	20%	35%	50%	75%	100%	150%	Others	
1	Sovereigns and their central banks	3 980				1 227		1 062	3 675		9 944
2	Non-central government public sector entities					352		200			552
3	Multilateral development banks										
4	Banks	705		10 719		2 162		924	283		14 793
5	Securities firms										
6	Corporates					4 186		3 964	3 328		11 478
7	Regulatory retail portfolios	65				1 786	7 184				9 035
8	Secured by residential property	1			8 920	36	3 868	941			13 766
9	Secured by commercial real estate										
10	Equity										
11	Past-due loans										
12	Higher-risk categories										
13	Other assets	280		737				524	37		1 578
14	<b>Total</b>	<b>5 031</b>		<b>11 456</b>	<b>8 920</b>	<b>9 749</b>	<b>11 052</b>	<b>7 615</b>	<b>7 323</b>		<b>61 146</b>

## Credit risk under the Advanced Internal Ratings-based Approach

### 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 99,9<sup>th</sup> 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.

The IAS 39 *Financial Instruments: Recognition and Measurement* (IAS 39) requirements for credit risk form an integral part of Nedbank's credit risk measurement and management. Nedbank assesses the adequacy of impairments, in line with IFRS, on a continuous basis. Specific impairments are recognised in respect of defaulted advances where there is objective evidence, after initial recognition, that all amounts due will not be collected. Portfolio impairments are recognised in respect of performing advances based on historical evidence and trends of losses in each segment of the performing portfolio.

In July 2014 the International Accounting Standards Board (IASB) issued the final version of IFRS 9 *Financial Instruments*, which included the new impairment requirements.

The main objective of the new impairment requirements is to replace the backward-looking 'incurred loss' model under IAS 39 with a forward-looking 'expected credit loss (ECL)' model in order 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 and will need to be updated at each reporting date in order to reflect changes in the credit risk of the underlying financial instrument.

IFRS 9 also introduces a classification of financial assets into three different stages which determines the ECL quantification approach:

- Stage 1: Financial assets without objective evidence of impairment for which the credit risk at reporting data has not significantly increased since initial recognition.
- Stage 2: Financial assets without objective evidence of impairment for which the credit risk at reporting data 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 default events in the next 12 months from reporting date, whereas financial assets in stage 2 will be subject to a (higher) lifetime ECL, ie ECLs on any default event between reporting date and the end of the financial asset's lifetime. Financial assets in stage 3 are also subject to lifetime ECL, however ECL is based on the difference between the asset's gross carrying amount and the present value of estimated future cash flows discounted at the financial asset's original effective interest rate as the asset is already in default.

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

In December 2015 the BCBS issued its supervisory guidance titled 'Guidance on credit risk and accounting for ECL' which outlines the basic principles for 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. The guidance will impact banks implementing IFRS 9 and is designed to drive consistent interpretations and practice, where there are commonalities, and when the same accounting framework is applied. The guidance will be incorporated in Nedbank's implementation of IFRS 9.

IFRS 9 will be effective from 1 January 2018. Although IFRS 9 will be available for early adoption, the group will only apply the standard from 1 January 2018, subject to the transition provisions. The IFRS 9 Programme is on track and we are satisfied that Nedbank is well positioned for a parallel run in 2017.

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
<b>PDs</b>			
Intention of estimate	■ Average estimate of default within next 12 months.	■ Best estimate of likelihood and timing of credit losses over the loss identification period.	■ 12-month or lifetime default risk depending on credit quality of the asset (including fully performing loans).
Period of measurement	■ Long-run historical average over whole economic cycle – TTC.	■ Should reflect current economic conditions – PIT.	■ Reflects current and future economic cycles to the extent relevant to the remaining life of the loan on a PIT basis.
<b>LGDs</b>			
Intention of estimate	■ Average estimate of the discounted value of post-default recoveries.	■ Current estimate of the discounted value of post-default recoveries.	■ Estimate of the discounted value of post-default recoveries.
Treatment of collection costs	■ Recoveries net of direct and indirect collection costs.	■ 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.	■ Cashflows discounted using instrument's original effective interest rate.	■ Cashflows are discounted at the instrument's original effective interest rate or an approximation thereof.
Period of measurement	■ Reflects period of high credit losses. ■ Downturn loss given default (dLGD) required.	■ Should reflect current economic conditions – PIT.	■ Reflects current and future economic cycles to the extent relevant to the remaining life of the loan.
<b>EL</b>			
Basis of exposure	■ Based on EAD, which includes unutilised and contingent facilities.	■ 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 which varies by portfolio whereas for IFRS 9:
  - For stage 1 an ECL is derived using 12 month PDs.
  - For exposures which 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 'expected-loss' approach:

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

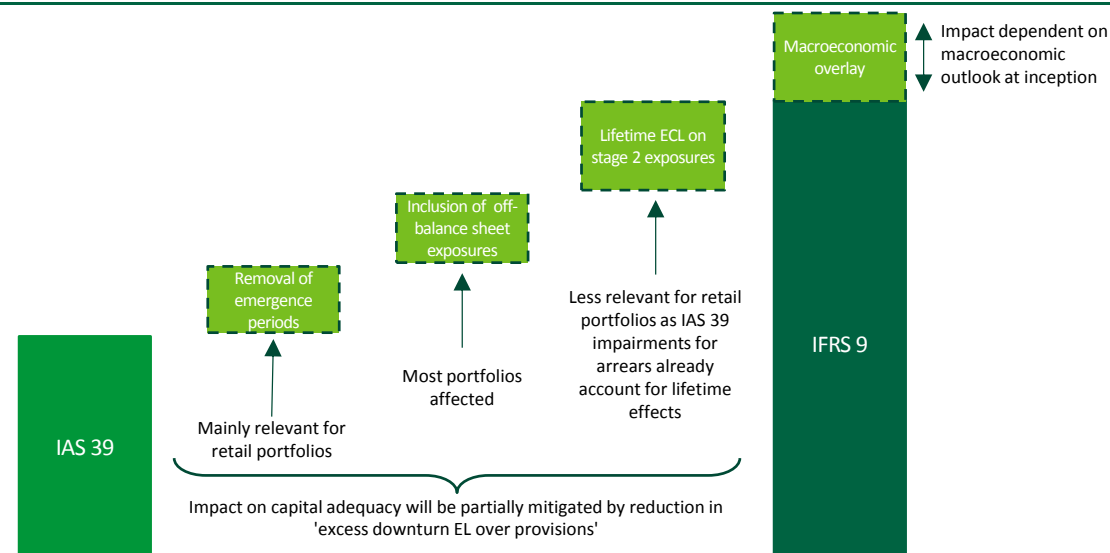
As credit RWA for defaulted exposures is based on the difference between specific impairments [or best estimate of expected loss (BEEL)] and dEL, any change to the specific impairments under IFRS 9 will have an impact on credit RWA for defaulted exposures.

## IFRS 9: expected changes to income statement and balance sheet impairments

The implementation of the new IFRS 9 accounting rules for impairments is expected to lead to an overall increase in balance sheet impairments and thus portfolio coverage with different levels of impacts by portfolio. There will be a once-off impact at inception (1 January 2018) which will be taken from reserves without impacting Nedbank's income statement, however this decrease in reserves will be partially mitigated by a lower capital deduction due to 'excess dEL over provisions' (December 2016: R1,5bn), which will result in a lower impact on CARs.



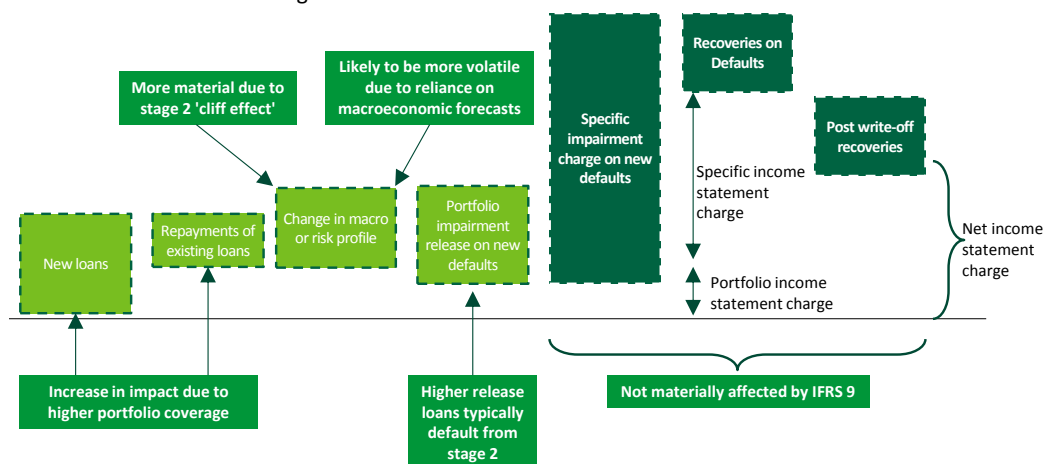
## Drivers of impact on balance sheet impairments at inception (portfolio impairments)



After implementation, there is potential for an increase in the volatility of the income statement charge due to changes in the macroeconomic outlook as well as 'cliff effects' for clients moving between stage 1 and 2, however the actual long-run average credit losses will not be affected by IFRS 9, as client defaults and subsequent recoveries are not driven by accounting standards.

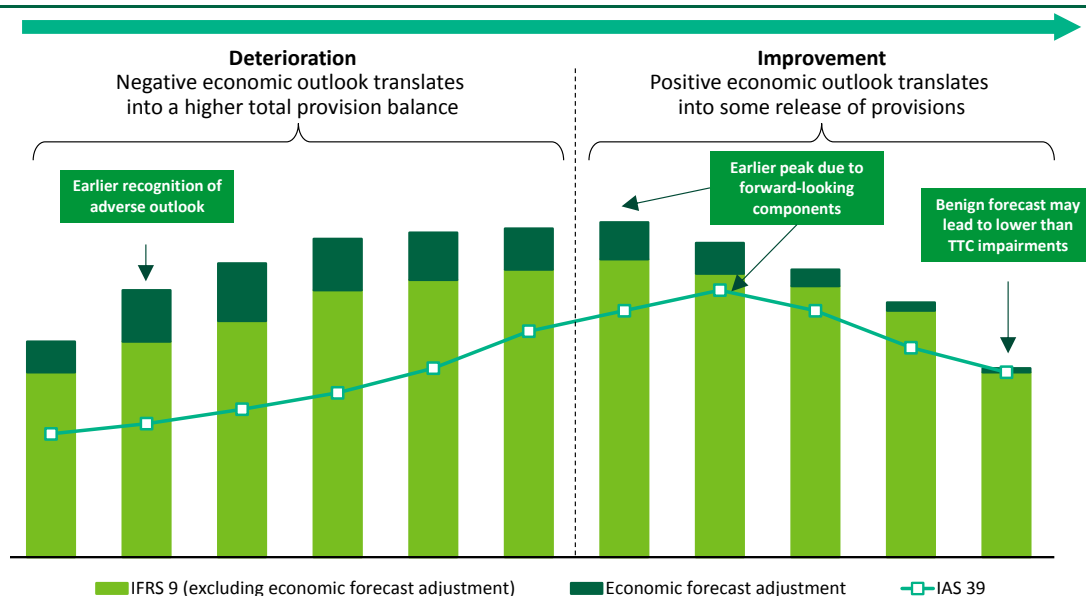
## Expected impact on income statement impairments

IAS 39: Buildup of annual income statement charge



The overall income statement impact over the life of a deal will not change, however losses will be recognised earlier and changes in the macroeconomic outlook may lead to interim in- or decreases in coverage levels.

## Expected impact on balance sheet portfolio impairments



Source: National Australia Bank

## 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)**  
PD 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)**  
EAD 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)**  
LGD is the economic loss the group expects to incur on a particular facility should the client default and is 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 is a measure defined as the losses occurring during economic 'downturn' conditions.

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

Each business cluster has developed 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 Nedbank's GIA Division performs risk-based audits.

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

### MODEL TYPE

MODEL CHARACTERISTICS			
Constrained expert judgement scorecards	Hybrid models	Statistical scorecards	Structural models
<ul style="list-style-type: none"> <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 so as to ensure objectivity.</li> </ul>	<ul style="list-style-type: none"> <li>■ Hybrid models comprise the best of conventional statistical modelling techniques and constrained expert judgement.</li> <li>■ These models are typically used for those portfolios where there is insufficient data to develop robust statistical measures in isolation.</li> <li>■ Statistical tests are still performed, but these are enhanced by the addition of suitably conservative expert opinion.</li> </ul>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>■ Structural models such as cashflow simulation models are the most complex type of models.</li> <li>■ In some instances the data requirements are also significant. This is the case with the workout models used to estimate LGD and EAD.</li> </ul>

An overview of the rating approaches adopted across the various asset classes is as follows:

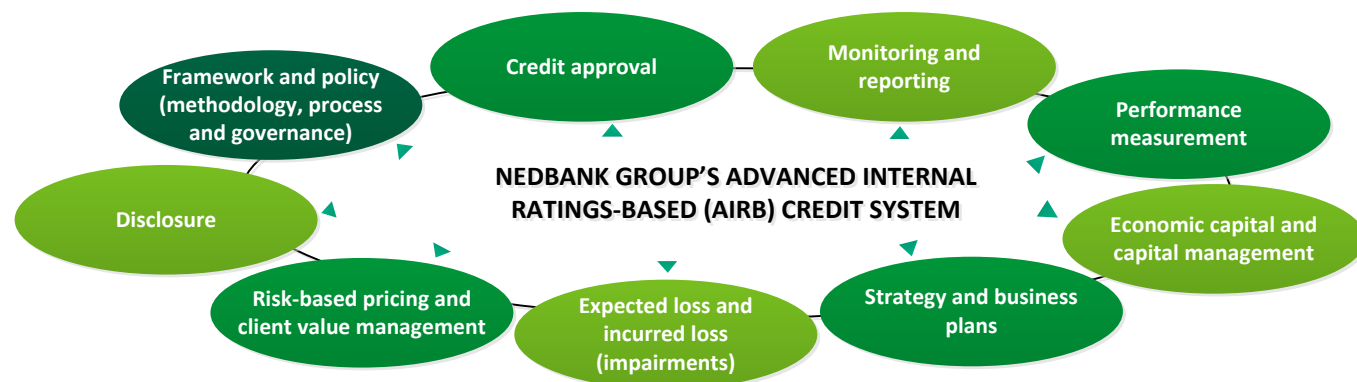
### NATURE OF RATING SYSTEM

WHOLESALE RATING SYSTEM		RETAIL RATING SYSTEM	
Asset classes	Modelling approaches adopted	Asset classes	Modelling approaches adopted
<ul style="list-style-type: none"> <li>■ Corporate</li> <li>■ SME - corporate</li> <li>■ Banks</li> <li>■ Sovereign, public sector entities (PSE) and local government and municipalities</li> <li>■ Specialised lending, comprising: <ul style="list-style-type: none"> <li>□ Project finance</li> <li>□ Commodity finance</li> <li>□ IPRE</li> <li>□ HVCRE</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <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.</li> </ul>	<ul style="list-style-type: none"> <li>■ Retail mortgages</li> <li>■ Retail revolving credit</li> <li>■ SME - retail</li> <li>■ Retail other, comprising: <ul style="list-style-type: none"> <li>□ Overdrafts, student and term loans</li> <li>□ Personal loans</li> <li>□ Vehicle and asset finance</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <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 invariably used.</li> <li>■ EAD and LGD models are in use across all material portfolios and these 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, thus 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



Group Credit Policy not only incorporates the minimum requirements stipulated in the revised SA banking regulations, but also documents 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 credit risk mitigation (ie PD only), while the second measures transaction risk (ie EL), which incorporates the effect of collateral, any other credit risk mitigation 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

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

<sup>1</sup> The indicative mapping methodology for corporate exposures was amended during 2016 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 principle benefit thereof is that comparisons can be made between the riskiness of borrowers making up various portfolios. A brief explanation of the scale follows.

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 (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 being for facilities of average risk and the final four bands indicate facilities of high or very high risk.

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

Rating class	Expected loss as a % of EAD	
	Lower bound (EL >)	Upper bound (EL ≤)
NTR01	0,00	0,05
NTR02	0,05	0,10
NTR03	0,10	0,20
NTR04	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 credit risk mitigation 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 ratings are used indirectly as inputs into rating models for the bank, sovereign and securitisation asset classes. During 2016 there were no changes in the external credit assessment institutions (ECAIs) and export credit agencies 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 to 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**

2016 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 <sup>1</sup> Rm	RWA density %	EL Rm	Provisions Rm
<b>Corporate</b>												
0,00 to < 0,15	74 826	32 163	73,96	98 327	0,08	475	32,17	1,98	17 366	17,67	22	
0,15 to < 0,25	38 369	23 686	64,08	53 319	0,18	336	30,19	1,68	12 847	24,11	27	
0,25 to < 0,50	34 966	14 966	84,08	46 563	0,38	400	26,39	1,71	14 861	32,20	41	
0,50 to < 0,75	21 958	7 874	17,03	23 052	0,75	501	30,48	2,10	12 270	53,20	43	
0,75 to < 2,50	20 308	6 097	93,26	25 537	1,55	759	25,57	2,25	15 416	60,62	94	
2,50 to < 10,00	27 134	8 401	83,03	33 713	4,37	1 319	32,62	1,91	33 259	99,04	466	
10,00 to < 100,00	5 187	1 575	68,55	6 198	13,17	91	31,58	1,83	8 951	144,72	261	
100,00 (default)	3 004	521	29,83	3 150	100,00	113	33,04	1,48	2 759	88,97	887	
	225 752	95 283	70,20	289 859	2,20	3 994	30,21	1,90	117 729	40,76	1 841	951
<b>Specialised Lending</b>												
0,00 to < 0,15	30 955	1 132	> 150	33 834	0,06	645	17,30	3,49	3 772	11,15	4	
0,15 to < 0,25	13 070	315	> 150	14 005	0,20	217	21,22	4,21	4 200	29,82	6	
0,25 to < 0,50	17 274	1 210	> 150	18 790	0,38	362	18,65	3,78	6 147	32,82	13	
0,50 to < 0,75	14 524	736	> 150	15 710	0,77	747	21,54	3,85	8 175	49,82	16	
0,75 to < 2,50	15 975	844	> 150	17 582	1,48	777	17,16	3,76	8 538	48,23	44	
2,50 to < 10,00	23 081	1 144	139,29	24 665	4,64	666	19,92	3,05	18 013	73,02	235	
10,00 to < 100,00	2 216	40	> 150	2 340	14,50	184	17,13	3,10	2 057	87,91	49	
100,00 (default)	1 096			1 096	100,00	48	20,94	2,20	911	83,13	248	
	118 191	5 421	> 150	128 022	2,41	3 646	18,96	3,59	51 813	40,23	615	696
<b>Public sector entities</b>												
0,00 to < 0,15	13 383	4 495	58,98	16 034	0,07	18	32,71	2,81	2 061	12,85	2	
0,15 to < 0,25	2 557	15	> 150	2 655	0,16	3	12,62	4,98	475	17,91	1	
0,25 to < 0,50												
0,50 to < 0,75	1 766	4	> 150	1 783	0,82	5	18,51	3,20	723	40,55	3	
0,75 to < 2,50	975	384	112,42	1 406	1,42	4	54,56	1,68	1 523	108,31	10	
2,50 to < 10,00	50	1 718	100,15	1 771	3,62	1	49,40	1,47	2 532	143,00	32	
10,00 to < 100,00												
100,00 (default)												
	18 731	6 616	74,35	23 649	0,48	31	31,94	2,92	7 314	30,93	48	< 1

2016 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 <sup>1</sup> Rm	RWA density %	EL Rm	Provisions Rm
<b>Local government and municipalities</b>												
0,00 to < 0,15	8 324	1 234	91,98	9 459	0,09	10	13,98	3,89	1 105	11,68	1	
0,15 to < 0,25	609			618	0,16	3	19,22	4,39	155	25,03		
0,25 to < 0,50	24	62	55,77	59	0,45	4	18,16	2,28	16	27,83		
0,50 to < 0,75	52	9	77,66	59	0,79	9	19,72	3,90	28	46,88		
0,75 to < 2,50												
2,50 to < 10,00												
10,00 to < 100,00												
100,00 (default)	31			31	100,00	1	19,50	5,00			8	
	9 040	1 305	90,85	10 226	0,40	27	14,37	3,92	1 304	12,75	9	8
<b>Sovereign</b>												
0,00 to < 0,15	99 533	1 108	23,65	99 795	0,01	13	13,01	2,50	2 612	2,62	2	
0,15 to < 0,25		142	55,55	79	0,18		67,80	3,94	67	84,58		
0,25 to < 0,50	858			858	0,45	1	37,90	1,48	420	48,99	1	
0,50 to < 0,75												
0,75 to < 2,50												
2,50 to < 10,00	60			61	5,28	4	65,20	1,98	137	224,36	2	
10,00 to < 100,00					10,24	1	67,80	5,00	1	357,14		
100,00 (default)												
	100 451	1 250	27,38	100 793	0,02	19	13,30	2,49	3 237	3,21	5	2
<b>Banks</b>												
0,00 to < 0,15	27 039	112	> 150	27 683	0,09	79	24,99	1,20	3 623	13,09	6	
0,15 to < 0,25	5 118	285	132,92	5 496	0,18	13	22,93	1,59	1 253	22,80	2	
0,25 to < 0,50	2 183	266	85,55	2 410	0,45	21	29,29	1,30	1 100	45,64	3	
0,50 to < 0,75	7	1	> 150	33	0,88	7	42,88	0,99	29	89,32		
0,75 to < 2,50					1,81	3	34,69	1,00		75,56		
2,50 to < 10,00	61	652	100,37	716	3,80	23	49,87	1,07	1 078	150,63	14	
10,00 to < 100,00	494	144	106,32	647	25,39	8	65,13	0,91	2 235	345,52	106	
100,00 (default)												
	34 902	1 460	142,84	36 985	0,64	154	26,17	1,26	9 318	25,19	131	< 1

2016 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 <sup>1</sup> Rm	RWA density %	EL Rm	Provisions Rm
<b>Securities firms</b>												
0,00 to < 0,15												
0,15 to < 0,25												
0,25 to < 0,50	< 1			< 1	0,32	1	49,23	1,00	< 1	46,81	< 1	
0,50 to < 0,75												
0,75 to < 2,50												
2,50 to < 10,00												
10,00 to < 100,00												
100,00 (default)												
	< 1			< 1	0,32	1	49,23	1,00	< 1	46,81	< 1	< 1
<b>Retail – Mortgages</b>												
0,00 to < 0,15	4 190	2 852	82,25	6 535	0,06	8 091	14,52	0,03	168	2,58	1	
0,15 to < 0,25	5 451	6 715	93,14	11 705	0,72	19 332	15,73	1,17	1 422	12,13	3	
0,25 to < 0,50	18 886	6 855	89,04	24 990	0,40	53 536	14,68	0,61	2 563	10,25	15	
0,50 to < 0,75	25 285	4 043	97,09	29 211	0,76	67 269	15,41	0,62	4 946	16,93	34	
0,75 to < 2,50	17 282	1 575	131,05	19 347	1,51	31 866	15,37	1,58	5 158	26,66	45	
2,50 to < 10,00	30 796	1 578	87,98	32 184	4,11	63 321	16,79	0,79	16 742	52,02	227	
10,00 to < 100,00	12 256	143	> 150	12 537	22,29	25 877	16,88	0,33	11 907	94,97	471	
100,00 (default)	5 982	432	4,00	5 999	100,00	10 746	18,65	0,65	985	16,42	1 252	
	120 128	24 193	92,51	142 508	7,59	280 038	15,84	0,78	43 891	30,80	2 048	1 615
<b>Retail – Revolving credit</b>												
0,00 to < 0,15	12	120	15,01	30	0,11	7 833	35,78		1	2,53		
0,15 to < 0,25	410	2 400	30,92	1 152	0,21	78 754	46,61		64	5,60	1	
0,25 to < 0,50	1 287	3 806	27,74	2 343	0,39	177 189	51,11		232	9,92	5	
0,50 to < 0,75	2 041	3 395	38,05	3 332	0,79	220 337	52,31		585	17,55	14	
0,75 to < 2,50	1 982	2 682	30,68	2 804	1,42	194 292	51,95		769	27,43	21	
2,50 to < 10,00	4 703	3 378	57,37	6 640	5,41	1 357 419	53,21		4 739	71,37	193	
10,00 to < 100,00	3 087	847	64,65	3 634	22,32	326 080	54,05		5 196	142,98	439	
100,00 (default)	1 488			1 488	100,00	2 408 814	55,94		83	5,55	1 299	
	15 010	16 628	38,58	21 423	12,77	4 770 718	52,63		11 669	54,47	1 972	1 425



2016 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 <sup>1</sup> Rm	RWA density %	EL Rm	Provisions Rm
<b>SME – Retail</b>												
0,00 to < 0,15	85	200	34,26	154	0,09	2 336	23,79	2,40	9	5,78		
0,15 to < 0,25	314	475	56,04	580	0,21	3 499	24,75	2,81	63	10,84		
0,25 to < 0,50	1 355	1 864	64,27	2 553	0,43	10 003	21,14	3,36	370	14,50	2	
0,50 to < 0,75	4 693	3 353	63,39	6 819	0,81	10 570	22,94	3,70	1 527	22,39	13	
0,75 to < 2,50	7 509	2 354	87,27	9 563	1,56	6 778	22,76	3,49	2 757	28,83	34	
2,50 to < 10,00	16 735	4 233	76,39	19 969	5,01	103 245	28,97	2,48	9 051	45,33	307	
10,00 to < 100,00	1 828	986	20,80	2 034	18,67	6 830	26,12	2,11	1 154	56,75	101	
100,00 (default)	1 576	274	2,58	1 583	100,00	11 749	28,47	2,62	856	54,04	709	
	34 095	13 739	66,66	43 255	7,35	155 010	25,95	2,94	15 787	36,50	1 166	767
<b>Retail – Other</b>												
0,00 to < 0,15	13	3	9,76	13	0,11	202	50,90		2	14,63	< 1	
0,15 to < 0,25	26	145	101,86	173	0,20	418	31,55	1,10	23	13,52	< 1	
0,25 to < 0,50	56	163	61,12	155	0,39	532	29,64	1,93	29	18,84	< 1	
0,50 to < 0,75	1 307	285	70,82	1 509	0,85	11 246	31,47	0,11	471	31,21	4	
0,75 to < 2,50	7 830	133	91,03	7 951	1,43	111 695	29,59	0,06	2 900	36,48	34	
2,50 to < 10,00	65 396	165	78,52	65 526	3,90	567 858	30,92		30 747	46,92	826	
10,00 to < 100,00	20 018	60	73,18	20 062	22,28	290 313	39,11		17 884	89,14	1 718	
100,00 (default)	5 057			5 057	100,00	169 007	44,39	0,01	813	16,08	2 513	
	99 703	954	77,95	100 446	12,15	1 151 271	33,14	0,01	52 869	52,63	5 095	4 114
<b>Group</b>												
0,00 to < 0,15	258 360	43 419	77,17	291 864	0,06	19 704	22,26	2,32	30 719	10,53	38	
0,15 to < 0,25	65 924	34 178	69,81	89 782	0,25	102 575	26,08	2,11	20 569	22,91	40	
0,25 to < 0,50	76 889	29 192	74,79	98 721	0,39	242 049	22,58	1,82	25 738	26,07	80	
0,50 to < 0,75	71 633	19 700	50,14	81 508	0,77	310 691	23,37	1,94	28 754	35,28	127	
0,75 to < 2,50	71 861	14 069	87,64	84 190	1,51	346 174	22,89	2,26	37 061	44,02	282	
2,50 to < 10,00	168 016	21 269	81,00	185 245	4,29	2 093 856	28,16	1,18	116 298	62,78	2 302	
10,00 to < 100,00	45 086	3 795	62,38	47 452	20,60	649 384	32,11	0,58	49 385	104,07	3 145	
100,00 (default)	18 234	1 227	13,88	18 404	100,00	2 600 478	32,18	0,83	6 407	34,81	6 916	
<b>Total group</b>	<b>776 003</b>	<b>166 849</b>	<b>72,62</b>	<b>897 166</b>	<b>4,32</b>	<b>6 364 911</b>	<b>24,78</b>	<b>1,85</b>	<b>314 931</b>	<b>35,10</b>	<b>12 930</b>	<b>9 578</b>

<sup>1</sup> RWA excludes Specialised Lending – HVCRE which is under the Slotting Approach.

2015 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 <sup>1</sup> Rm	RWA density %	EL Rm	Provisions Rm
<b>Corporate</b>												
0,00 to < 0,15	75 813	35 859	73,27	102 087	0,08	403	30,49	2,04	17 609	17,25	22	
0,15 to < 0,25	28 367	17 251	61,14	38 914	0,20	362	33,85	1,99	12 338	31,71	23	
0,25 to < 0,50	38 462	11 757	84,72	48 422	0,40	444	28,78	2,08	18 947	39,13	42	
0,50 to < 0,75	29 593	9 715	67,13	36 115	0,74	564	28,83	2,14	18 768	51,97	70	
0,75 to < 2,50	27 959	10 670	53,23	33 638	1,57	781	30,82	2,00	24 173	71,86	147	
2,50 to < 10,00	27 517	10 566	69,21	34 829	4,80	1 353	31,71	1,98	35 524	102,00	543	
10,00 to < 100,00	3 733	697	90,60	4 365	14,13	94	26,09	2,10	4 878	111,75	148	
100,00 (default)	1 689	89	10,54	1 698	100,00	132	32,16	1,67	2 225	131,04	517	
	233 133	96 604	69,29	300 068	1,71	4 133	30,57	2,04	134 462	44,81	1 512	597
<b>Specialised Lending</b>												
0,00 to < 0,15	24 601	3 254	102,33	27 931	0,06	660	16,92	3,63	3 568	12,77	8	
0,15 to < 0,25	8 951	1 078	79,12	9 804	0,19	253	17,14	4,08	2 242	22,87	3	
0,25 to < 0,50	9 003	1 415	147,72	11 092	0,38	326	16,68	3,56	3 248	29,28	8	
0,50 to < 0,75	17 569	1 857	66,25	18 799	0,76	829	17,89	3,79	7 849	41,75	27	
0,75 to < 2,50	10 528	1 138	126,52	11 968	1,57	866	17,61	3,77	6 116	51,10	33	
2,50 to < 10,00	21 894	3 918	66,19	24 487	4,27	617	19,73	3,04	17 424	71,16	221	
10,00 to < 100,00	2 332	12	> 150	2 523	17,07	208	16,51	3,47	2 308	91,47	78	
100,00 (default)	1 648	56		1 648	100,00	50	16,47	2,42	1 624	98,53	216	
	96 526	12 728	92,14	108 252	3,26	3 809	17,78	3,55	44 379	41,00	594	743
<b>Public sector entities</b>												
0,00 to < 0,15	8 279	5 294	58,57	11 380	0,03	29	33,87	2,65	1 043	9,16	1	
0,15 to < 0,25	2 696	15	> 150	2 787	0,16	2	12,62	4,99	499	17,90	1	
0,25 to < 0,50	1 671	2 647	96,53	4 226	0,41	3	18,02	1,99	1 034	24,47	3	
0,50 to < 0,75	812	1	122,92	814	0,64	2	19,50	2,58	293	36,07	1	
0,75 to < 2,50	838	245	143,05	1 189	1,42	4	70,74	1,30	1 741	146,47	12	
2,50 to < 10,00	23	23	57,37	36	4,81	2	14,90	1,01	16	44,89		
10,00 to < 100,00												
100,00 (default)												
	14 319	8 225	74,31	20 432	0,24	42	29,23	2,75	4 626	22,64	18	< 1

2015 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 <sup>1</sup> Rm	RWA density %	EL Rm	Provisions Rm
<b>Local government and municipalities</b>												
0,00 to < 0,15	8 411	580	94,77	8 960	0,07	8	13,52	4,17	974	10,87	1	
0,15 to < 0,25	705			715	0,20	5	18,61	4,39	192	26,86	< 1	
0,25 to < 0,50	177	1	> 150	183	0,33	5	19,49	4,90	69	37,69	< 1	
0,50 to < 0,75	31			31	0,91	3	19,50	5,00	17	55,35	< 1	
0,75 to < 2,50	45	11	81,69	54	1,28	7	19,50	3,73	29	53,40	< 1	
2,50 to < 10,00												
10,00 to < 100,00												
100,00 (default)	36			36	100,00	1	19,50	5,00			41	
	9 405	592	96,97	9 979	0,45	29	14,07	4,20	1 281	12,84	42	41
<b>Sovereign</b>												
0,00 to < 0,15	83 200	2 642	33,80	84 092	0,01	24	12,77	2,24	1 758	2,09	1	
0,15 to < 0,25												
0,25 to < 0,50	1 088			1 090	0,43	4	38,09	2,17	602	55,26	2	
0,50 to < 0,75		145	100,00	145	0,64	2	44,24	0,47	79	54,75	< 1	
0,75 to < 2,50												
2,50 to < 10,00	134	382	56,14	348	5,31	5	49,27	4,48	714	204,84	9	
10,00 to < 100,00	22			23	14,48	1	54,00	1,00	58	257,77	2	
100,00 (default)												
	84 444	3 169	39,60	85 698	0,04	36	13,30	2,24	3 211	3,75	14	< 1
<b>Banks</b>												
0,00 to < 0,15	31 566	194	> 150	32 345	0,05	94	26,38	1,35	3 349	10,35	5	
0,15 to < 0,25	233	263	102,46	503	0,22	12	38,02	1,31	177	35,10	< 1	
0,25 to < 0,50	863	14	> 150	886	0,43	18	32,77	1,43	425	47,93	1	
0,50 to < 0,75	393			397	0,64	3	52,78	1,00	293	73,84	1	
0,75 to < 2,50	241			272	1,34	5	48,76	1,00	265	97,20	2	
2,50 to < 10,00	1 099	785	101,37	1 894	3,61	32	53,13	0,70	2 691	142,05	37	
10,00 to < 100,00	26	334	100,13	360	11,10	8	63,59	0,51	966	268,20	25	
100,00 (default)												
	34 421	1 590	140,68	36 657	0,37	172	28,89	1,30	8 166	22,27	71	2

2015	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 <sup>1</sup> Rm	RWA density %	EL Rm	Provisions Rm
Basel asset class												
Securities firms												
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)												
Retail – Mortgages												
0,00 to < 0,15	396	5 188	102,51	5 714	0,04	45 634	12,17	0,01	87	1,52	< 1	
0,15 to < 0,25	8 254	8 034	105,42	16 723	0,20	33 676	12,08	0,80	872	5,21	4	
0,25 to < 0,50	4 290	3 353	108,99	7 944	0,39	7 657	14,80	1,83	797	10,03	4	
0,50 to < 0,75	7 753	3 423	109,00	11 483	0,81	22 163	14,01	1,62	1 840	16,02	13	
0,75 to < 2,50	41 479	1 693	> 150	44 647	1,69	86 577	14,46	0,66	12 056	27,00	110	
2,50 to < 10,00	33 244	2 121	124,08	35 876	3,89	53 218	19,27	0,69	19 967	55,66	252	
10,00 to < 100,00	15 648	170	> 150	16 208	18,51	29 276	19,57	0,22	16 878	104,13	569	
100,00 (default)	4 779	413	2,14	4 787	100,00	8 357	18,13	0,76	593	12,39	1 224	
	115 843	24 395	112,90	143 382	7,04	286 558	15,98	0,75	53 090	37,03	2 176	1 626
Retail – Revolving credit												
0,00 to < 0,15												
0,15 to < 0,25	188	1 335	46,33	807	0,20	38 233	46,61		44	5,47	1	
0,25 to < 0,50	877	3 595	38,28	2 254	0,39	118 453	54,46		237	10,51	5	
0,50 to < 0,75	1 828	4 591	36,40	3 499	0,76	200 311	59,51		680	19,42	16	
0,75 to < 2,50	2 709	3 055	39,81	3 926	1,56	192 102	59,77		1 331	33,90	37	
2,50 to < 10,00	4 805	3 153	48,65	6 338	4,76	1 389 137	62,39		4 848	76,49	190	
10,00 to < 100,00	2 695	803	62,90	3 200	22,66	363 284	64,00		5 483	171,37	466	
100,00 (default)	1 249			1 249	100,00	2 048 078	65,60		115	9,19	1 161	
	14 351	16 532	41,87	21 273	11,16	4 349 598	60,42		12 738	59,88	1 876	1 289

2015 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 <sup>1</sup> Rm	RWA density %	EL Rm	Provisions Rm
<b>SME – Retail</b>												
0,00 to < 0,15	47	60	82,68	97	0,07	85	26,95	2,05	5	5,22	< 1	
0,15 to < 0,25	253	510	47,56	495	0,21	5 044	27,46	2,56	57	11,56	< 1	
0,25 to < 0,50	1 134	1 281	81,77	2 181	0,43	8 710	24,13	3,23	357	16,38	2	
0,50 to < 0,75	4 223	3 399	69,96	6 600	0,81	19 385	25,15	3,43	1 614	24,45	13	
0,75 to < 2,50	7 248	2 934	79,95	9 593	1,56	15 188	24,37	3,40	2 952	30,77	36	
2,50 to < 10,00	15 538	3 784	68,42	18 127	5,00	77 692	29,69	2,44	8 383	46,25	273	
10,00 to < 100,00	1 896	361	58,68	2 108	16,48	21 817	30,27	2,22	1 360	64,51	108	
100,00 (default)	1 333	299	4,16	1 345	100,00	11 812	31,42	2,58	1 009	75,00	597	
	31 672	12 628	70,29	40 546	6,94	159 733	27,45	2,87	15 737	38,81	1 029	654
<b>Retail – Other</b>												
0,00 to < 0,15	5	146	102,24	155	0,03	954	35,75		6	4,17	< 1	
0,15 to < 0,25	22	57	95,51	76	0,20	97	29,93	1,52	8	10,70	< 1	
0,25 to < 0,50	62	117	88,13	165	0,41	378	30,94	1,57	32	19,23	< 1	
0,50 to < 0,75	2 659	160	48,67	2 737	0,90	14 265	43,67	0,04	1 230	44,93	11	
0,75 to < 2,50	6 722	274	92,26	6 975	1,74	62 729	45,59	0,07	4 179	59,90	56	
2,50 to < 10,00	61 173	183	101,01	61 358	4,72	623 970	39,83		37 848	61,68	1 166	
10,00 to < 100,00	17 807	50	> 150	17 887	17,97	299 710	44,83		17 309	96,77	1 451	
100,00 (default)	4 576			4 576	100,00	184 968	49,58	0,01	569	12,44	2 378	
	93 026	987	91,45	93 929	11,53	1 187 071	41,77	0,01	61 181	65,14	5 062	3 903
<b>Group</b>												
0,00 to < 0,15	232 318	53 217	76,00	272 761	0,05	47 891	22,35	2,23	28 399	10,41	38	
0,15 to < 0,25	49 669	28 543	74,11	70 824	0,20	77 684	25,53	2,12	16 429	23,20	32	
0,25 to < 0,50	57 627	24 180	86,10	78 443	0,40	135 998	25,84	2,23	25 748	32,82	67	
0,50 to < 0,75	64 861	23 291	67,67	80 620	0,77	257 527	25,75	2,39	32 663	40,51	152	
0,75 to < 2,50	97 769	20 020	72,40	112 262	1,63	358 259	24,74	1,58	52 842	47,07	433	
2,50 to < 10,00	165 427	24 915	71,72	183 293	4,53	2 146 026	31,51	1,17	127 415	69,51	2 691	
10,00 to < 100,00	44 159	2 427	103,61	46 674	17,95	714 398	33,58	0,57	49 240	105,50	2 847	
100,00 (default)	15 310	857	3,57	15 339	100,00	2 253 398	33,92	0,92	6 135	39,99	6 134	
<b>Total group</b>	<b>727 140</b>	<b>177 450</b>	<b>75,00</b>	<b>860 216</b>	<b>4,08</b>	<b>5 991 181</b>	<b>26,33</b>	<b>1,81</b>	<b>338 871</b>	<b>39,39</b>	<b>12 394</b>	<b>8 855</b>

**CR7: AIRB – EFFECT ON RWA OF CREDIT RISK DERIVATIVES USED AS CRM TECHNIQUES<sup>1</sup>**

Rm	2016		2015	
	Pre-credit derivatives RWA <sup>2</sup>	Actual RWA <sup>2</sup>	Pre-credit derivatives RWA <sup>2</sup>	Actual RWA <sup>2</sup>
1 Sovereign – Foundation IRB (FIRB)				
2 Sovereign – AIRB	3 237	3 237	3 211	3 211
3 Banks – FIRB				
4 Banks – AIRB	9 318	9 318	8 166	8 166
5 Corporate – FIRB				
6 Corporate – AIRB	117 729	117 729	134 462	134 462
7 Specialised lending – FIRB				
8 Specialised lending – AIRB	51 813	51 813	44 379	44 379
9 Retail – qualifying revolving	11 669	11 669	12 738	12 738
10 Retail – residential mortgage exposures	43 891	43 891	53 090	53 090
11 Retail – SME	15 787	15 787	15 737	15 737
12 Other retail exposures	52 869	52 869	61 181	61 181
13 Equity – FIRB				
14 Equity – AIRB				
15 Purchased receivables – FIRB				
16 Purchased receivables – AIRB				
Public sector entities – AIRB	7 314	7 314	4 626	4 626
Local government and municipalities - AIRB	1 304	1 304	1 281	1 281
<b>17 Total</b>	<b>314 931</b>	<b>314 931</b>	<b>338 871</b>	<b>338 871</b>

<sup>1</sup> No credit derivatives were applied as credit risk mitigation during the year.

<sup>2</sup> RWA excludes Specialised Lending – HVCRE which is under the Slotting Approach.

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

Rm	2016	2015
	RWA <sup>1</sup>	RWA <sup>1</sup>
1 <b>RWA as at end of previous reporting period</b>	<b>348 196</b>	299 967
2 Asset size	18 338	31 861
3 Asset quality	(10 976)	20 440
4 Model updates	(26 671)	(6 570)
5 Methodology and policy	(2 100)	
6 Acquisitions and disposals		
7 Foreign exchange movements	(3 232)	2 498
8 Other		
<b>9 RWA as at end of reporting period</b>	<b>323 555</b>	348 196

<sup>1</sup> RWA includes Specialised Lending – HVCRE.

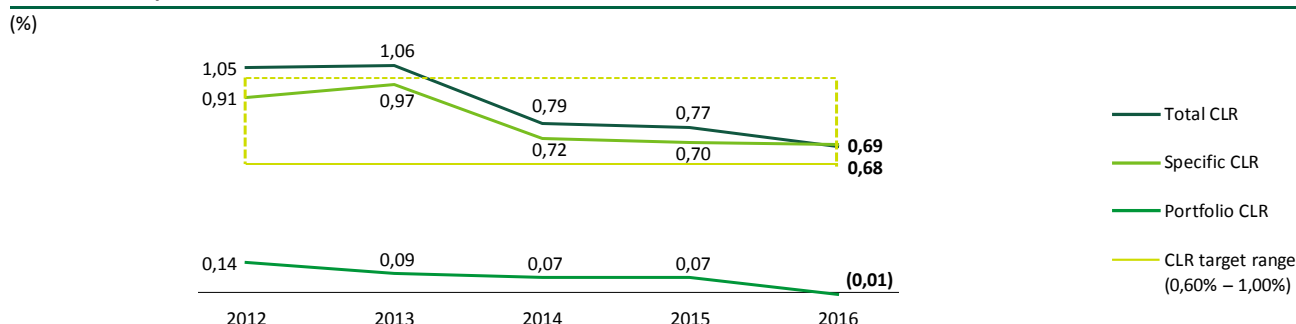
**Credit loss ratio**

- In spite of tough economic conditions, Nedbank has maintained a low CLR. This was mainly attributable to the proactive management of the portfolio and conservative provisioning within the group.
- All the cluster CLRs are below or within the TTC target range, which resulted in an improvement of the Nedbank Group CLR to 0,68% (2015: 0,77%).
- Nedbank CIB CLR decreased to 0,34% (2015: 0,40%) due to lower losses experienced in the resolution of defaulted advances and robust risk management of the portfolio.
  - Portfolio CLR decreased to 0,01% (2015: 0,10%) due to rating migrations within the book as well as the releases of portfolio impairments as a result of repayments from various clients.
- Nedbank RBB CLR improved to 1,12% (2015: 1,14%) due to the following:
  - Nedbank Business Banking CLR decreased to 0,26% (2015: 0,48%) and continued to reflect proactive and disciplined risk management practices with the higher level of recoveries and stable portfolio ratings in 2016.
  - Nedbank Retail CLR increased to 1,37% (2015: 1,34%) due to the higher provisions in secured lending off a low base offset by lower impairments in unsecured lending due to the better quality of the portfolio. The strong collection focus further reduced the CLR in Personal Loans to 6,92% (2015: 7,48%).

## CREDIT LOSS RATIO PER BUSINESS CLUSTER

%	Nedbank CIB	Nedbank CIB excluding Property Finance	Property Finance	Nedbank RBB	Nedbank Business Banking	Nedbank Retail	Nedbank Wealth	Rest of Africa	Nedbank Group
<b>2016</b>									
<b>TTC target ranges</b>	<b>0,15 – 0,45</b>			<b>1,30 - 1,80</b>			<b>0,20 – 0,40</b>	<b>0,65 – 1,00</b>	<b>0,60 – 1,00</b>
<b>Total credit loss ratio</b>	<b>0,34</b>	<b>0,53</b>	<b>0,04</b>	<b>1,12</b>	<b>0,26</b>	<b>1,37</b>	<b>0,08</b>	<b>0,98</b>	<b>0,68</b>
Specific credit loss ratio	0,33	0,52	0,02	1,12	0,26	1,38	0,06	1,12	0,69
Portfolio credit loss ratio	0,01	0,01	0,02	(0,00)	0,00	(0,01)	0,02	(0,14)	(0,01)
<b>2015</b>									
Total credit loss ratio	0,40	0,61	0,08	1,14	0,48	1,34	0,15	1,25	0,77
Specific credit loss ratio	0,30	0,50		1,14	0,34	1,39	0,12	1,26	0,70
Portfolio credit loss ratio	0,10	0,11	0,08		0,14	(0,05)	0,03	(0,01)	0,07

## Nedbank Group credit loss ratio trends



## SUMMARY OF THE CREDIT LOSS RATIO BY BUSINESS UNIT

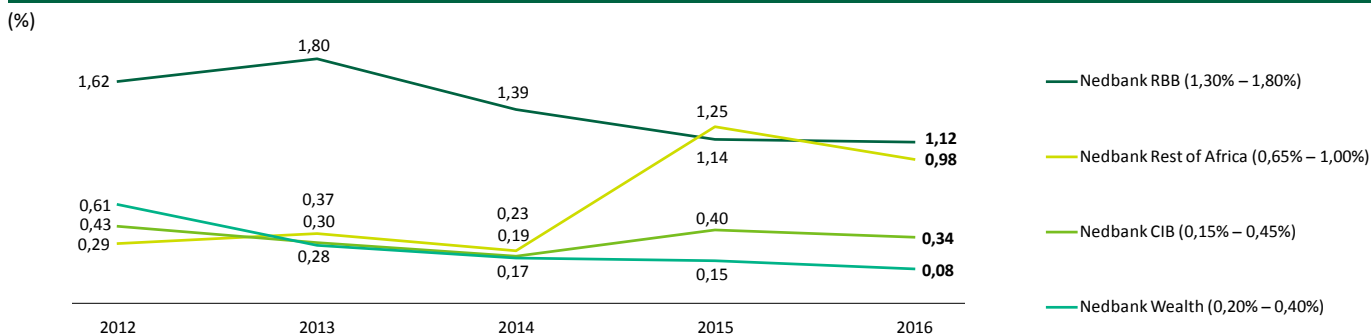
	Mix of average banking advances		Impairment charge				Credit loss Ratio	
	2016	2015	2016		2015		2016	2015
	%	%	Rm	Mix %	Rm	Mix %	%	%
<b>Nedbank Group<sup>1</sup></b>	<b>100,0</b>	<b>100,0</b>	<b>4 555</b>	<b>100,0</b>	<b>4 789</b>	<b>100,0</b>	<b>0,68</b>	<b>0,77</b>
<b>Nedbank CIB<sup>2</sup></b>	<b>48,9</b>	<b>47,6</b>	<b>1095</b>	<b>24,0</b>	<b>1 188</b>	<b>24,8</b>	<b>0,34</b>	<b>0,40</b>
Nedbank CIB <sup>2</sup> excluding								
Property Finance	29,7	28,8	1 049	23,0	1 091	22,8	0,53	0,61
Property Finance	19,2	18,8	46	1,0	97	2,0	0,04	0,08
<b>Nedbank RBB</b>	<b>43,9</b>	<b>45,5</b>	<b>3 261</b>	<b>71,6</b>	<b>3 212</b>	<b>67,1</b>	<b>1,12</b>	<b>1,14</b>
Nedbank Business								
Banking	9,9	10,7	173	3,8	320	6,7	0,26	0,48
Nedbank Retail <sup>2</sup>	34,0	34,8	3 088	67,8	2 892	60,4	1,37	1,34
Home Loans	12,4	13,1	55	1,2	48	1,0	0,07	0,06
MFC	12,0	12,0	1 019	22,4	790	16,5	1,28	1,06
Consumer Banking	2,7	2,8	1 229	27,0	1 297	27,1	6,79	7,34
Personal Loans	2,6	2,7	1 179	25,9	1 244	26,0	6,92	7,48
Client Engagement	0,2	0,1	50	1,1	53	1,1	4,74	5,16
Relationship Banking	4,7	4,6	29	0,6	34	0,7	0,09	0,12
Card	2,2	2,3	756	16,6	723	15,1	5,13	5,12
<b>Nedbank Wealth</b>	<b>4,4</b>	<b>4,3</b>	<b>22</b>	<b>0,5</b>	<b>39</b>	<b>0,8</b>	<b>0,08</b>	<b>0,15</b>
<b>Rest of Africa</b>	<b>2,7</b>	<b>2,6</b>	<b>177</b>	<b>3,9</b>	<b>201</b>	<b>4,2</b>	<b>0,98</b>	<b>1,25</b>

<sup>1</sup> Nedbank Group includes the Centre.

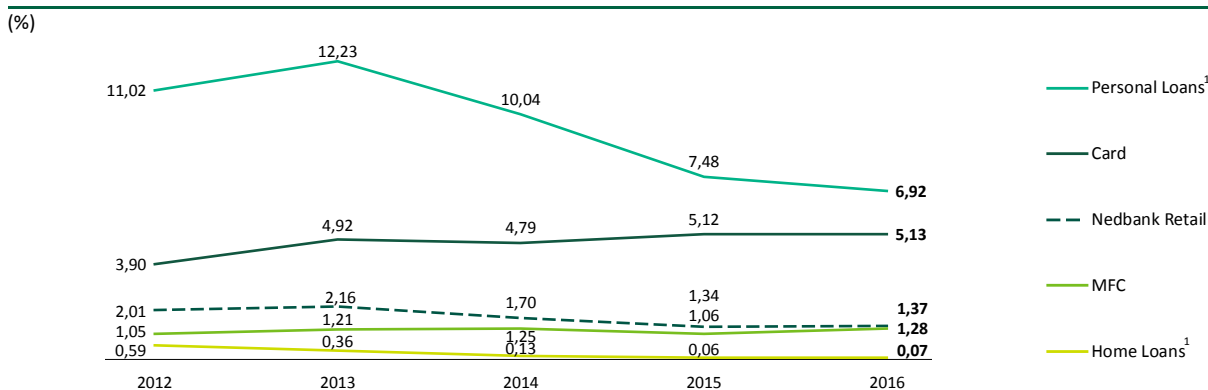
<sup>2</sup> The central units in CIB and Nedbank Retail do not contribute to CLR and are excluded from the table.



## Business cluster credit loss ratio trends

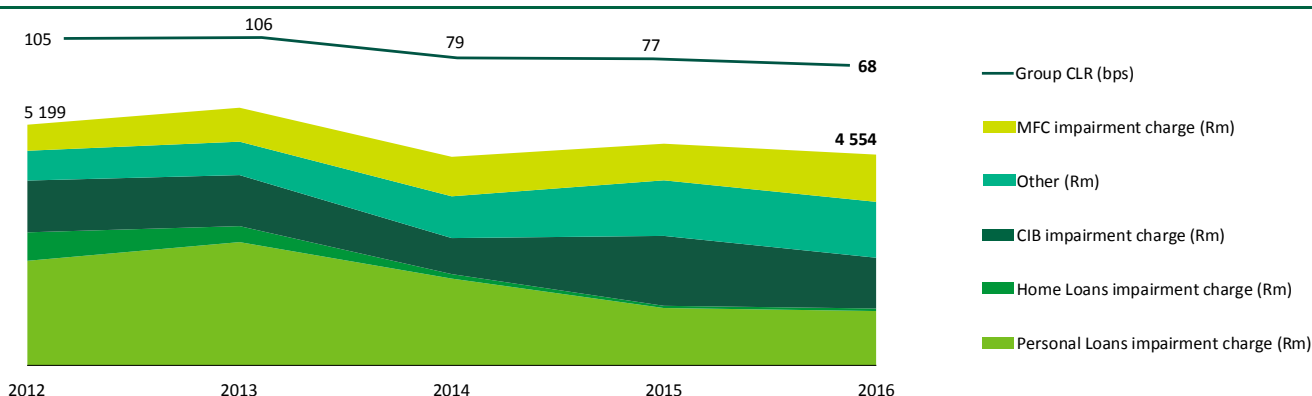


## Nedbank Retail credit loss ratio per business unit



<sup>1</sup> Personal Loans and Home Loans represent specific business units within Nedbank Retail.

## Group impairment charge and credit loss ratio



## Impairments

- Total impairments as a percentage of gross loans and advances increased to 1,69% (2015: 1,65%) due to an increase in Nedbank CIB to 0,58% (2015: 0,49%), offset slightly by a Nedbank RBB decrease to 2,98% (2015: 3,00%) in line with the overall change in mix of secured and unsecured advances.
- The central provision remained stable at R500m (2015: R500m). Taking into account our assessment of the risks in some of the more stressed sectors of the economy and other risks that have been incurred but have not yet emerged. The Nedbank RBB overlays decreased to R654m (2015: R699m) mainly due to a reduction in the unsecured-debt portfolio overlays.
- The income statement impairments charge decreased to R4 554m (2015: R4 789m), indicative of good risk management in the portfolio.
  - The Nedbank CIB income statement impairment charge decreased to R1 095m (2015: R1 188m), driven by lower specific impairments raised as a result of lower losses experienced and an adequately collateralised defaulted portfolio.
  - The Nedbank RBB income statement impairments charge increased to R3 261m (2015: R3 212m) driven mainly by specific impairment increases in MFC in Nedbank Retail to R3 088m (2015: R2 892m).
- Group writeoffs decreased to R4 973m (2015: R5 610m) mainly due to effective collection strategies in Nedbank Retail and proven risk management in Nedbank CIB.
- Total balance sheet impairments increased by 6,5% to R12 149m (2015: R11 411m) due to the increase in specific impairments as a result of higher defaulted advances in Home Loans and Card in Nedbank Retail.
  - This increase is attributable to the 9,8% increase in specific impairments to R7 317m (2015: R6 664m), while portfolio impairments increased by 1,79% to R4 832m (2015: R4 747m) in line with a 3,8% increase in gross loans and advances.
  - Nedbank RBB balance sheet impairments decreased slightly to 2,98% of total advances (2015: 3,00%) due to lower portfolio coverage of 1,07% (2015: 1,11%), in line with a continued improvement of asset quality across all products.

## NEDBANK GROUP BALANCE SHEET IMPAIRMENTS BY BUSINESS CLUSTER

Rm	2016	2015
<b>Nedbank Group</b>	<b>12 149</b>	<b>11 411</b>
<b>Nedbank CIB</b>	<b>2 165</b>	<b>1 735</b>
Nedbank CIB excluding Property Finance	1 524	1 056
Property Finance	641	679
<b>Nedbank RBB</b>	<b>8 907</b>	<b>8 672</b>
Nedbank Business Banking	1 407	1 437
Nedbank Retail	7 500	7 235
<b>Nedbank Wealth</b>	<b>154</b>	<b>155</b>
<b>Rest of Africa</b>	<b>423</b>	<b>368</b>
<b>Centre</b>	<b>500</b>	<b>481</b>

## NEDBANK GROUP IMPAIRMENT RATIO BY BUSINESS CLUSTER

%	2012	2013	2014	2015	2016
<b>Total impairments to gross loans and advances</b>	<b>2,02</b>	<b>1,94</b>	<b>1,78</b>	<b>1,65</b>	<b>1,69</b>
<b>Nedbank CIB</b>	<b>0,53</b>	<b>0,49</b>	<b>0,48</b>	<b>0,49</b>	<b>0,58</b>
Nedbank CIB excluding Property Finance	0,45	0,45	0,42	0,45	0,65
Property Finance	0,69	0,58	0,60	0,55	0,47
<b>Nedbank RBB</b>	<b>3,52</b>	<b>3,56</b>	<b>3,22</b>	<b>3,00</b>	<b>2,98</b>
Nedbank Business Banking	2,05	2,00	1,98	2,17	2,15
Nedbank Retail <sup>1</sup>	3,98	4,05	3,61	3,25	3,21
Home Loans <sup>2</sup>	2,92	2,56	2,18	1,86	1,70
MFC	3,19	3,23	2,69	2,29	2,33
Personal Loans <sup>3</sup>	9,80	12,66	13,92	13,89	13,48
Card	7,04	7,79	7,21	8,29	8,67
<b>Nedbank Wealth</b>	<b>0,56</b>	<b>0,76</b>	<b>0,67</b>	<b>0,54</b>	<b>0,54</b>
<b>Rest of Africa</b>	<b>1,16</b>	<b>1,26</b>	<b>1,26</b>	<b>2,18</b>	<b>2,11</b>

<sup>1</sup> Only Nedbank Retail business units that contribute significantly to impairments are reflected.

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

<sup>3</sup> Personal Loans represents a specific business unit within Nedbank Retail.

**RECONCILIATION OF BALANCE SHEET IMPAIRMENTS BY BUSINESS CLUSTER**

	Nedbank CIB Rm	Nedbank CIB excluding Property Finance Rm	Nedbank Property Finance Rm	Nedbank RBB Rm	Nedbank Business Banking Rm	Nedbank Retail Rm	Nedbank Wealth Rm	Rest of Africa Rm	Centre Rm	Nedbank Group Rm	Change %	Nedbank Group 2015 Rm
<b>2016</b>												
<b>Opening balance</b>	1 735	1 056	679	8 672	1 437	7 235	155	368	481	11 411	2,8	11 095
Specific impairment	696	354	342	5 598	833	4 765	122	264	(16)	6 664	(2,5)	6 832
Specific impairment, excluding discounts <sup>1</sup>	396	282	114	4 956	644	4 312		105	(16)	5 441	(4,1)	5 673
Specific impairment for discounted cashflow losses <sup>2</sup>	300	72	228	642	189	453	122	159		1 223	5,5	1 159
Portfolio impairment	1 039	702	337	3 074	604	2 470	33	104	497	4 747	11,4	4 263
<b>Statement of comprehensive income impairments charge (net of recoveries)</b>	1 095	1 049	46	3 261	173	3 088	22	177	(1)	4 554	(4,9)	4 789
Specific impairment	1 019	948	71	3 167	134	3 033	22	146	(1)	4 353	1,4	4 291
Net increase/decrease in impairment for discounted cashflow losses	41	85	(44)	112	37	75	(4)	56		205	> 100,0	64
Portfolio impairment	35	16	19	(18)	2	(20)	4	(25)		(4)	> (100,0)	434
<b>Postwriteoff recoveries</b>	14	1	13	1 135	32	1 103	7	1		1 157	1,8	1 137
<b>Amounts written off and other transfers</b>	(679)	(582)	(97)	(4 161)	(234)	(3 927)	(30)	(123)	20	(4 973)	(11,4)	(5 610)
Specific impairment	(674)	(577)	(97)	(4 157)	(230)	(3 927)	(29)	(222)	20	(5 062)	(10,6)	(5 660)
Portfolio impairment	(5)	(5)		(4)	(4)		(1)	99		89	78	50
<b>Closing balance</b>	2 165	1 524	641	8 907	1 407	7 500	154	423	500	12 149	6,5	11 411
Specific impairment	1 096	811	285	5 855	805	5 050	118	245	3	7 317	9,8	6 664
Specific impairment, excluding discounts <sup>1</sup>	755	654	101	5 101	579	4 522		30	3	5 889	8,2	5 441
Specific impairment for discounted cashflow losses <sup>2</sup>	341	157	184	754	226	528	118	215		1 428	16,8	1 223
Portfolio impairment	1 069	713	356	3 052	602	2 450	36	178	497	4 832	1,8	4 747
<b>Total gross loans and advances</b>	372 364	235 375	136 989	298 789	65 320	233 469	28 731	20 005	(663)	719 226		693 043
<b>Total average gross loans and advances</b>	358 084	230 246	127 838	291 891	66 021	225 870	29 354	18 094	626	698 049		655 024
<b>Total average gross banking book loans and advances</b>	325 411	197 573	127 838	291 891	66 021	225 870	29 354	18 094	626	664 962		621 774

<sup>1</sup> Specific impairments excluding discounts is the difference between the total balance sheet specific impairment and the specific impairments for discounted cashflow losses.

<sup>2</sup> Specific impairments for discounted cashflow losses is the component of the total specific impairment charge, which is calculated as the lesser of the projected nominal recovery amount and the amount owing on the loan and advances minus the present value of the nominal recovery amount, discounted at the original effective interest rate.

## 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 that have 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 that is an input into the LGD calculation and would result in a decrease in the LGD and decrease in specific impairments.
- A change in the mix of new versus older defaults, as in 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.

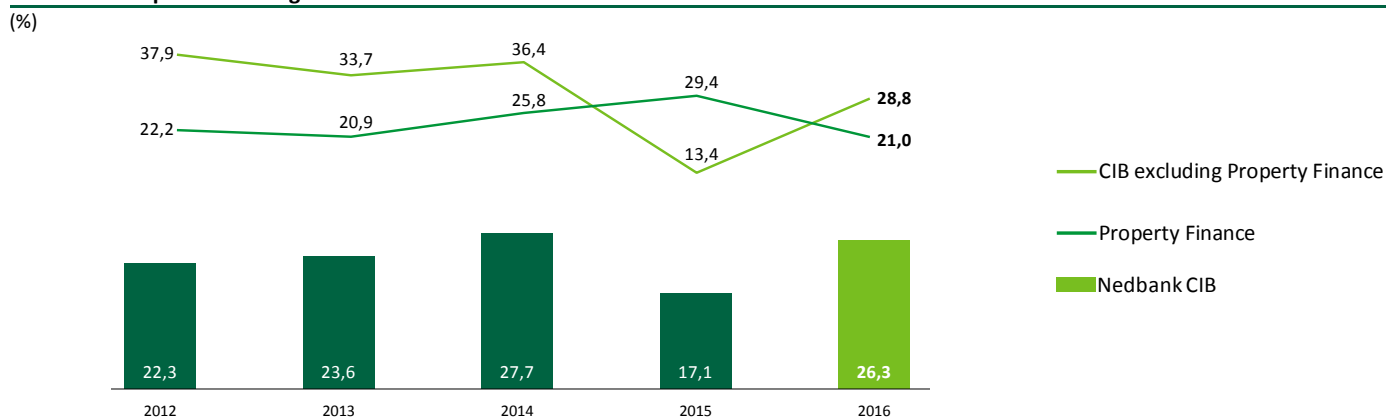
The group specific coverage ratio decreased to 37,4% (2015: 38,0%) due to lower specific coverage as a result of the implementation of the new curing definition in Nedbank Retail and the collateralised nature of the Nedbank CIB defaulted portfolio. The group portfolio coverage ratio remains stable at 0,69% (2015: 0,70%).

- Nedbank CIB specific coverage increased to 26,3% (2015: 17,1%), in line with settlement and/or restructures of certain counter. Wholesale specific impairments are determined on a deal-by-deal basis and are mostly secured by collateral including deep security pools held against our commercial property portfolio.
  - Nedbank Property Finance loans and advances are highly collateralised with low LTVs ratios, relatively lower loss expectations in the event of default and therefore a low specific coverage of 21,0% (2015: 23,8%).
  - Nedbank CIB portfolio coverage remained stable at 0,29% (2015: 0,29%).
- While the new curing definition impacted portfolio and specific coverage ratios, provisions overall were strengthened, increasing the total impairments as a percentage of gross loans and advances to 1,69% (2015: 1,65%).
- Nedbank RBB accounts for 72,8% (2015: 69,8%) of total defaulted advances, with specific coverage of 41,1% (2015: 45,6%). Nedbank Retail specific coverage decreased to 41,8% (2015: 46,7%), driven by the implementation of the new curing definition. If we exclude the impact of the new curing definition, specific coverage would have been 45,3%, which is in line with the industry average and the change in mix of secured and unsecured advances.
- Nedbank RBB portfolio coverage decreased to 1,07% (2015: 1,11%) in line with improvement in asset quality in the portfolio and the effects of the new curing definition. The Business Banking portfolio coverage remained stable at 0,95% (2015: 0,94%).

### NEDBANK GROUP COVERAGE RATIOS BY BUSINESS CLUSTER

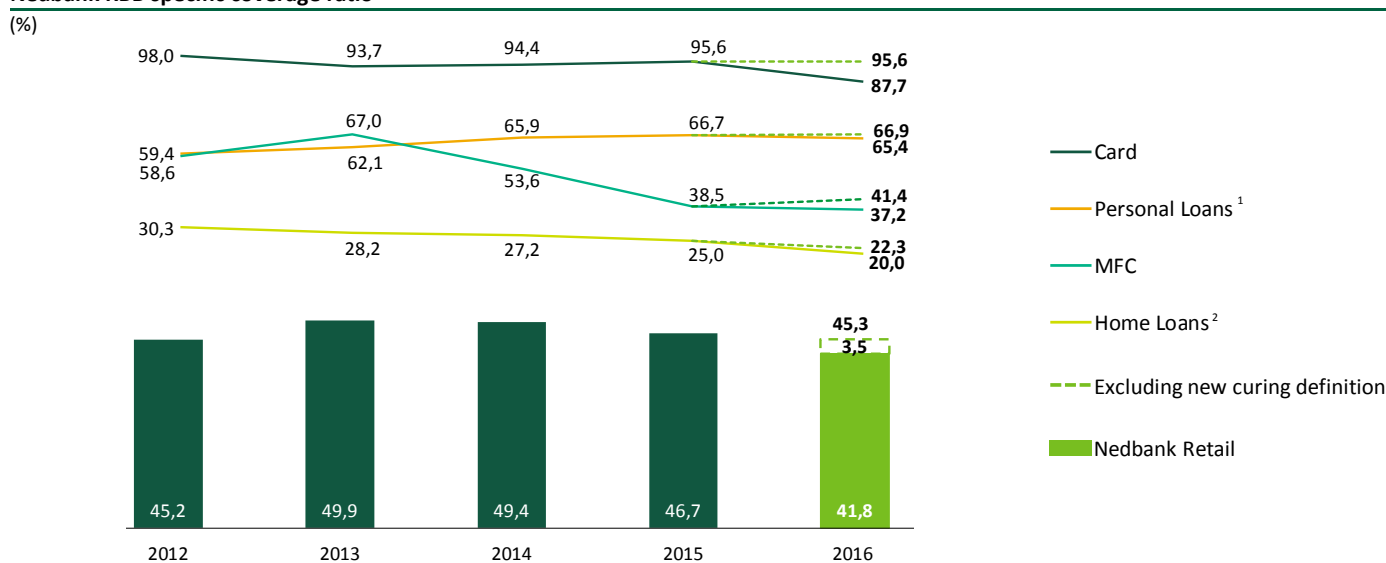
%	2012	2013	2014	2015	2016
<b>Specific coverage ratio</b>	38,6	42,3	43,1	38,0	37,4
<b>Nedbank CIB</b>	22,3	23,6	27,7	17,1	26,3
Nedbank CIB excluding Property Finance	37,9	33,7	36,4	13,4	28,8
Property Finance	22,2	20,9	25,8	29,4	21,0
<b>Nedbank RBB</b>	43,4	47,5	47,6	45,6	41,1
Nedbank Business Banking	34,4	35,8	38,5	40,5	37,6
Nedbank Retail	45,2	49,9	49,4	46,7	41,8
<b>Nedbank Wealth</b>	15,9	26,9	23,9	20,8	19,4
<b>Rest of Africa</b>	43,8	47,0	47,3	41,6	46,1
<b>Portfolio coverage ratio</b>	0,66	0,68	0,70	0,70	0,69
<b>Nedbank CIB</b>	0,22	0,21	0,24	0,29	0,29
Nedbank CIB excluding Property Finance	0,22	0,21	0,24	0,30	0,31
Property Finance	0,20	0,22	0,22	0,28	0,26
<b>Nedbank RBB</b>	1,07	1,18	1,17	1,11	1,07
Nedbank Business Banking	0,62	0,72	0,82	0,94	0,95
Nedbank Retail	1,21	1,33	1,28	1,16	1,11
<b>Nedbank Wealth</b>	0,12	0,12	0,10	0,12	0,13
<b>Rest of Africa</b>	0,72	0,70	0,53	0,64	0,91

### Nedbank CIB specific coverage ratio



<sup>1</sup> Wholesale includes Nedbank CIB and Nedbank Business Banking.

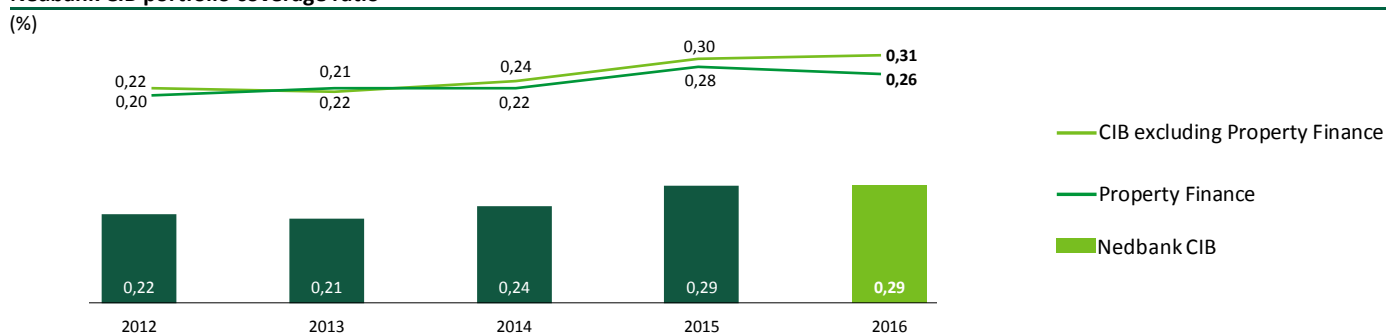
### Nedbank RBB specific coverage ratio



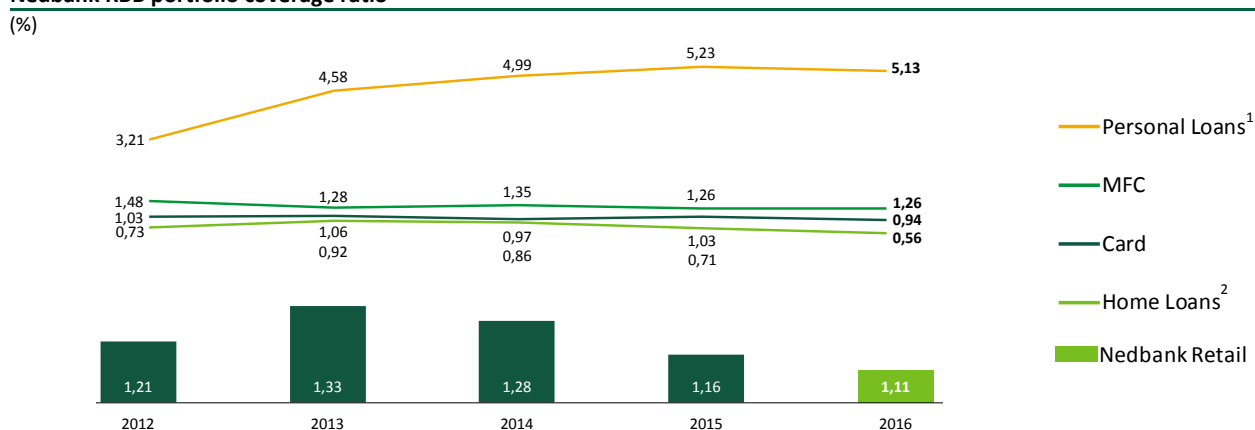
<sup>1</sup> Personal Loans represents a specific business unit within Nedbank Retail.

<sup>2</sup> Home Loans represents a specific business unit within Nedbank Retail. This excludes home loans in the Nedbank Retail Relationship Banking business unit.

### Nedbank CIB portfolio coverage ratio



### Nedbank RBB portfolio coverage ratio



<sup>1</sup> Personal Loans represents a specific business unit within Nedbank Retail.

<sup>2</sup> Home Loans represents a specific business unit within Nedbank Retail. This excludes home loans in the Nedbank Retail Relationship Banking business unit.

## Backtesting of PD per portfolio

Nedbank applies the AIRB Approach for the majority of its credit portfolios. The corresponding PD parameters are long-run averages and associated models are subject to annual validation, which includes a backtesting exercise in order to compare the estimates to the actual outcomes over time.

The Basel III Pillar 3 disclosure regulations require banks to compare the regulatory AIRB PD parameters to the actual observed average historical annual default rates. The regulations prescribe that for each major AIRB asset class a breakdown of key statistics by PD range be tabulated. These key statistics include:

- Weighted average PD – this has been calculated on an EAD weighted basis.
- Arithmetic average PD by obligors – a simple average of PDs among obligors within the PD range.
- Number of obligors – the number of obligors within the PD range at the beginning and end of the observation period.
- Defaulted obligors in the year – the total number of obligors in default at any point within the observation period.
- Of which new obligors defaulted in the year – the number of obligors which were new during the observation period and went into default within the observation period.
- Average historical annual default rate – an average of the previous five years' annual default rates.

### CR9: AIRB – BACKTESTING OF PD PER PORTFOLIO – WHOLESALE ASSET CLASSES

The wholesale asset classes have exhibited an improving trend in historical annual default rates with the majority of asset classes displaying relatively conservative PD estimates.

The Specialised Lending - Project Finance asset class has been particularly affected by the recent stress in the commodities industries, this is evident in the relatively high historical annual default rate of 3,00%. It is important to note however that the Steel and Oil and Gas sectors have seen stress abating. The remedial action undertaken by most of the resource companies will take time to flow through to their financial results, but an increase in share prices points to a more positive outlook. We expect some positive migration in 2017, provided commodity prices continue to trend upward.

PD Range	External rating equivalent	2016						
		Weighted average PD	Arithmetic average PD by obligors	Number of obligors		Defaulted obligors in the year	Of which: new obligors defaulted in the year	Average historical annual default rate
				End of previous year	End of the year			
Corporate								
0,00 to < 0,15	AAA, AA, A	0,08	0,08	115	132			0,12
0,15 to < 0,25	A-, BBB+	0,20	0,20	99	90			0,06
0,25 to < 0,50	BBB	0,39	0,40	104	96			0,29
0,50 to < 0,75	BB	0,72	0,76	86	77			
0,75 to < 2,50	BB-	1,57	1,56	84	75	3		3,22
2,50 to < 10,00	B+, B	5,19	6,88	434	484	9	3	1,64
10,00 to < 100,00	B- and below	13,34	15,12	11	13			0,16
100,00 (Default)	Defaulted	100,00	100,00	12	13	9		0,00
Total		1,01	3,66	945	980	21	3	0,53
SME Corporate								
0,00 to < 0,15	AAA, AA, A	0,09	0,09	288	343	3		1,52
0,15 to < 0,25	A-, BBB+	0,21	0,20	263	246	1		0,05
0,25 to < 0,50	BBB	0,43	0,40	340	304	1		0,04
0,50 to < 0,75	BB	0,80	0,78	478	424	2		0,26
0,75 to < 2,50	BB-	1,57	1,58	697	684	3		0,52
2,50 to < 10,00	B+, B	3,83	3,55	919	835	18	9	2,01
10,00 to < 100,00	B- and below	15,76	18,23	83	78	9		10,17
100,00 (Default)	Defaulted	100,00	100,00	120	100	119		
Total		2,14	2,11	3 188	3 014	156	9	1,04

PD Range	External rating equivalent	2016						
		Weighted average PD	Arithmetic average PD by obligors	Number of obligors		Defaulted obligors in the year	Of which: new obligors defaulted in the year	Average historical annual default rate
				End of previous year	End of the year			
Corporate - Specialised Lending Project Finance								
0,00 to < 0,15	AAA, AA, A	0,07	0,07	21	6	1		0,10
0,15 to < 0,25	A-, BBB+	0,17	0,18	11	12			
0,25 to < 0,50	BBB	0,32	0,37	10	13			9,47
0,50 to < 0,75	BB	0,83	0,79	12	9			0,30
0,75 to < 2,50	BB-	1,76	1,60	10	6			
2,50 to < 10,00	B+, B	3,69	3,77	10	7	1	1	12,71
10,00 to < 100,00	B- and below	14,48	23,31	3	1			14,65
100,00 (Default)	Defaulted	100,00	100,00	5	1	5		
Total		1,67	1,82	82	55	7	1	3,00
Corporate - Specialised Lending IPRE								
0,00 to < 0,15	AAA, AA, A	0,06	0,05	639	639	2		0,44
0,15 to < 0,25	A-, BBB+	0,20	0,21	242	205	1		0,13
0,25 to < 0,50	BBB	0,40	0,40	316	349	2		0,03
0,50 to < 0,75	BB	0,74	0,76	817	738	4		0,41
0,75 to < 2,50	BB-	1,53	1,49	856	771	6		0,99
2,50 to < 10,00	B+, B	4,43	4,71	607	659	9		1,31
10,00 to < 100,00	B- and below	18,02	17,73	205	183	8		9,50
100,00 (Default)	Defaulted	100,00	100,00	45	47	41		
Total		1,79	2,34	3 727	3 591	73		0,69
Sovereign								
0,00 to < 0,15	AAA, AA, A	0,01	0,02	24	13			
0,15 to < 0,25	A-, BBB+	0,00	0,00					
0,25 to < 0,50	BBB	0,43	0,00		1			
0,50 to < 0,75	BB	0,64	0,64	2				
0,75 to < 2,50	BB-							
2,50 to < 10,00	B+, B	5,31	5,24	5	4			
10,00 to < 100,00	B- and below	14,48	14,48	1	1			
100,00 (Default)	Defaulted							
Total		0,04	1,29	32	19			
Banks								
0,00 to < 0,15	AAA, AA, A	0,05	0,05	94	79			
0,15 to < 0,25	A-, BBB+	0,22	0,20	12	13			
0,25 to < 0,50	BBB	0,42	0,41	18	21			
0,50 to < 0,75	BB	0,66	0,73	3	7			
0,75 to < 2,50	BB-	1,42	1,49	5	3			
2,50 to < 10,00	B+, B	3,61	4,21	32	23			
10,00 to < 100,00	B- and below	12,61	18,54	8	8			
100,00 (Default)	Defaulted							
Total		0,34	1,79	172	154			



**CR9: AIRB – BACKTESTING OF PD PER PORTFOLIO – RETAIL ASSET CLASSES**

Basel III model refinements which addressed a regulatory requirement resulted in a more accurate risk profile for the retail asset classes. This is reflected in the close alignment of historical annual default rates and PD estimates.

PD Range	External rating equivalent	2016						
		Weighted average PD	Arithmetic average PD by obligors	Number of obligors		Defaulted obligors in the year	Of which: new obligors defaulted in the year	Average historical annual default rate
				End of previous year	End of the year			
Retail Mortgages								
0,00 to < 0,15	AAA, AA, A	0,08	0,06	45 634	8 091	78		0,80
0,15 to < 0,25	A-, BBB+	0,20	0,21	33 676	19 332	32		0,10
0,25 to < 0,50	BBB	0,39	0,39	7 657	53 536	69	59	0,13
0,50 to < 0,75	BB	0,72	0,79	22 163	67 269	209	22	0,80
0,75 to < 2,50	BB-	1,57	1,56	86 577	31 866	1 185	9	1,25
2,50 to < 10,00	B+, B	5,19	4,18	53 218	63 321	1 700	35	2,75
10,00 to < 100,00	B- and below	13,34	22,93	29 276	25 877	5 897	335	17,56
100,00 (Default)	Defaulted	100,00	100,00	8 357	10 746	8 052	846	
Total		3,53	3,66	286 558	280 038	17 222	1 306	3,57
Qualifying Revolving Retail								
0,00 to < 0,15	AAA, AA, A	0,11	0,11		7 833			
0,15 to < 0,25	A-, BBB+	0,21	0,22	38 233	78 754	49		0,08
0,25 to < 0,50	BBB	0,39	0,39	118 453	177 189	432	1	0,35
0,50 to < 0,75	BB	0,79	0,79	200 311	220 337	1 826	24	1,01
0,75 to < 2,50	BB-	1,42	1,42	192 102	194 292	4 340	22	2,68
2,50 to < 10,00	B+, B	5,41	6,68	1 389 137	1 357 419	104 175	909	6,61
10,00 to < 100,00	B- and below	22,32	23,29	363 284	326 080	76 433	667	25,73
100,00 (Default)	Defaulted	100,00	100,00	2 048 078	2 408 814	2 009 056	689 978	
Total		7,28	6,26	4 349 598	4 770 718	2 196 311	691 601	7,11
Other Retail								
0,00 to < 0,15	AAA, AA, A	0,11	0,11	954	202	3		0,07
0,15 to < 0,25	A-, BBB+	0,20	0,21	97	418	1		1,97
0,25 to < 0,50	BBB	0,39	0,36	378	532	1		0,02
0,50 to < 0,75	BB	0,85	0,77	14 265	11 246	131		0,99
0,75 to < 2,50	BB-	1,43	1,43	62 729	111 695	1 665		2,69
2,50 to < 10,00	B+, B	3,90	4,11	623 970	567 858	22 974	37	3,39
10,00 to < 100,00	B- and below	22,28	22,09	299 710	290 313	56 538	164	17,85
100,00 (Default)	Defaulted	100,00	100,00	184 968	169 007	215 962	63 662	
Total		7,50	9,08	1 187 071	1 151 271	297 275	63 863	6,17
SME Retail								
0,00 to < 0,15	AAA, AA, A	0,09	0,11	85	2 336	2		2,72
0,15 to < 0,25	A-, BBB+	0,21	0,21	5 044	3 499	10		0,92
0,25 to < 0,50	BBB	0,43	0,37	8 710	10 003	28		0,47
0,50 to < 0,75	BB	0,81	0,73	19 385	10 570	107	4	1,08
0,75 to < 2,50	BB-	1,56	1,54	15 188	6 778	228	1	1,80
2,50 to < 10,00	B+, B	5,01	6,39	77 692	103 245	1 994	59	2,91
10,00 to < 100,00	B- and below	18,67	25,08	21 817	6 830	1 929	15	19,52
100,00 (Default)	Defaulted	100,00	100,00	11 812	11 749	6 656	2 806	
Total		3,83	5,96	159 733	155 010	10 954	2 885	2,98

**CR10: AIRB SPECIALISED LENDING**

		Specialised lending									
		Other than HVCRE									
2016 Regulatory categories		On- balance sheet amount	Off- balance sheet amount	RW %	Exposure amount					RWA	Expected losses
Rm	Remaining maturity				Project finance	Object finance	Commo- dities finance	IPRE	Total		
Strong	Less than 2,5 years			50							
	Equal to or more than 2,5 years			70							
Good	Less than 2,5 years			70							
	Equal to or more than 2,5 years			90							
Satisfactory		493	271	115				765	765	932	29
Weak				250							
Default		343			38			305	343		175
<b>Total</b>		<b>836</b>	<b>271</b>		<b>38</b>			<b>1 070</b>	<b>1 108</b>	<b>932</b>	<b>204</b>

<b>2015</b>											
Strong	Less than 2,5 years			50							
	Equal to or more than 2,5 years			70							
Good	Less than 2,5 years			70							
	Equal to or more than 2,5 years			90							
Satisfactory		672	29	115				701	701	806	25
Weak				250							
Default		406	56		131			275	406		88
<b>Total</b>		<b>1 078</b>	<b>85</b>		<b>131</b>			<b>976</b>	<b>1 107</b>	<b>806</b>	<b>113</b>

		HVCRE					
2016 Regulatory categories		On- balance sheet amount	Off- balance sheet amount	RW %	Exposure amount	RWA	Expected losses
Rm	Remaining maturity						
Strong	Less than 2,5 years			70			
	Equal to or more than 2,5 years	4 002	206	95	4 208	4 238	23
Good	Less than 2,5 years			95			
	Equal to or more than 2,5 years	958	40	120	998	1 270	5
Satisfactory		825	93	140	918	1 362	35
Weak		285		250	285	754	31
Default		491	34		525		114
<b>Total</b>		<b>6 561</b>	<b>373</b>		<b>6 934</b>	<b>7 624</b>	<b>208</b>

<b>2015</b>							
Strong	Less than 2,5 years			70			
	Equal to or more than 2,5 years	4 137	186	95	4 323	4 107	22
Good	Less than 2,5 years			95			
	Equal to or more than 2,5 years	1 058	45	120	1 102	1 323	6
Satisfactory		1 224	38	140	1 262	1 767	45
Weak		235	28	250	263	657	27
Default		641	2		643		177
<b>Total</b>		<b>7 295</b>	<b>299</b>		<b>7 593</b>	<b>7 854</b>	<b>277</b>

2016 Categories Rm	Equities under the simple risk-weight approach				
	On-balance sheet amount	Off-balance sheet amount	RW %	Exposure amount	RWA
Exchange-traded equity exposures	19		300	19	59
Private equity exposures	666		400	666	2 823
Other equity exposures	3 602		400	3 602	15 274
<b>Total</b>	<b>4 287</b>			<b>4 287</b>	<b>18 156</b>
<b>2015</b>					
Exchange-traded equity exposures	432		300	432	1 375
Private equity exposures	603		400	603	2 556
Other equity exposures	2 148		400	2 148	9 106
<b>Total</b>	<b>3 183</b>			<b>3 183</b>	<b>13 037</b>

# Liquidity risk and funding

The primary role of a bank in terms of financial intermediation is the transformation of short-term deposits into longer-term loans. By fulfilling the role of maturity transformation, 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, specifically 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, 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. 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.

### Key areas of focus

<p><b>Operational liquidity</b> Daily</p>	<p>CFD focus: Operational and tactical</p>	<ul style="list-style-type: none"> <li>■ Projected daily liquidity requirements</li> <li>■ Intraday liquidity risk management</li> <li>■ Daily clearing and settlement</li> <li>■ Liquid assets and cash reserve requirements</li> <li>■ Participation in the money market shortage and interbank reliance</li> <li>■ Operation within approved liquidity risk limits and guidelines</li> <li>■ Managing and maintaining market access</li> </ul>
<p><b>Tactical and strategic liquidity</b> Weekly, monthly, quarterly and annually</p>	<p>BSM focus: Strategic and tactical</p>	<ul style="list-style-type: none"> <li>■ Tactically managing seasonal and cyclical liquidity requirements</li> <li>■ Liquidity risk appetite and strategy</li> <li>■ Balance sheet optimisation</li> <li>■ Funding base diversification</li> <li>■ Liquidity buffers and internal assessment of liquidity self-sufficiency for stress scenarios</li> <li>■ Pricing for liquidity risk through the funds transfer pricing process</li> <li>■ Enhancing structural liquidity</li> <li>■ Best international practice</li> </ul>

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.

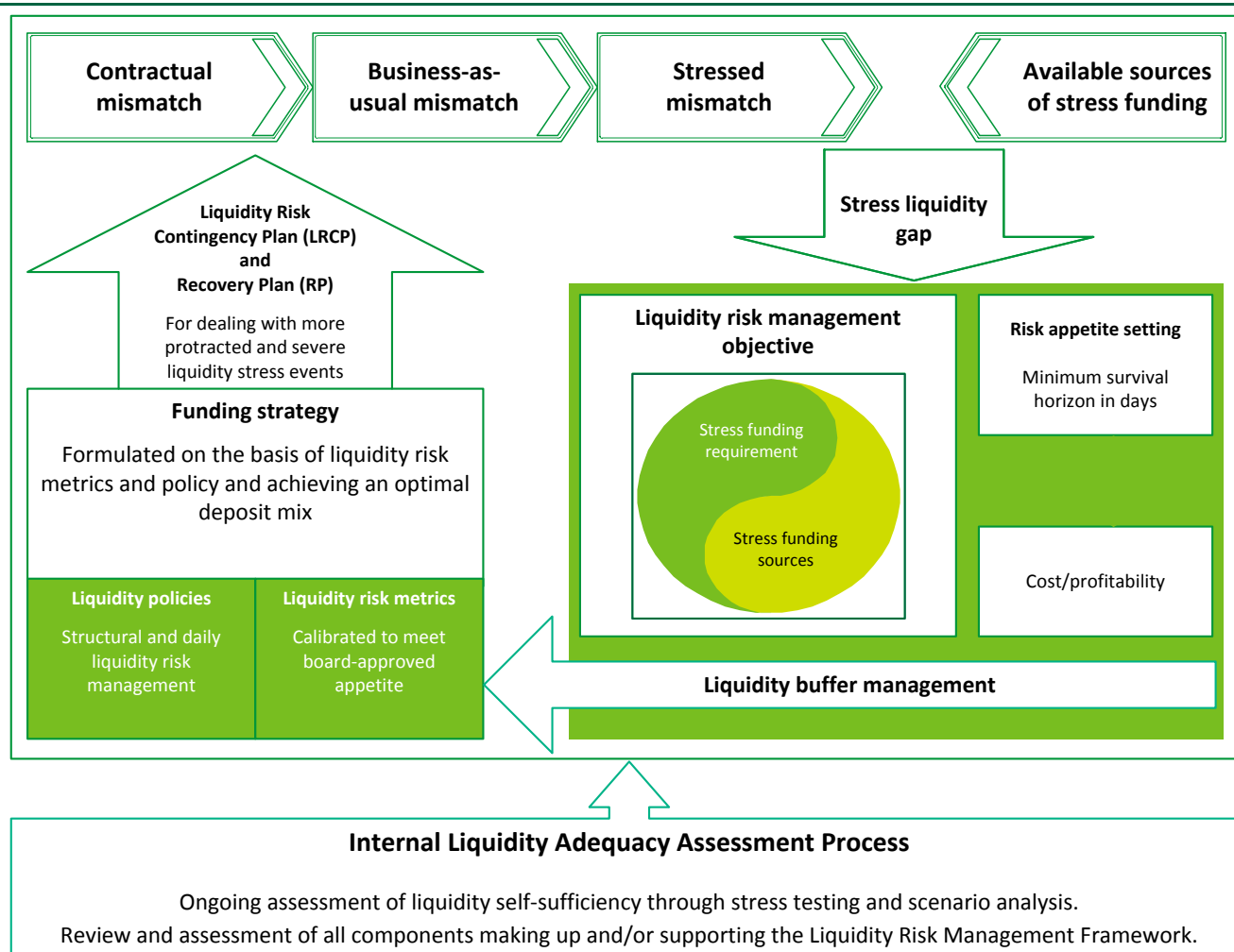
In the case of Nedbank Group's subsidiaries and foreign branches, liquidity risk is managed through the individual Alco's established in each of these businesses. These businesses are required to have appropriate governance structures, processes and practices designed to identify, measure, manage and 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 trade-off 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

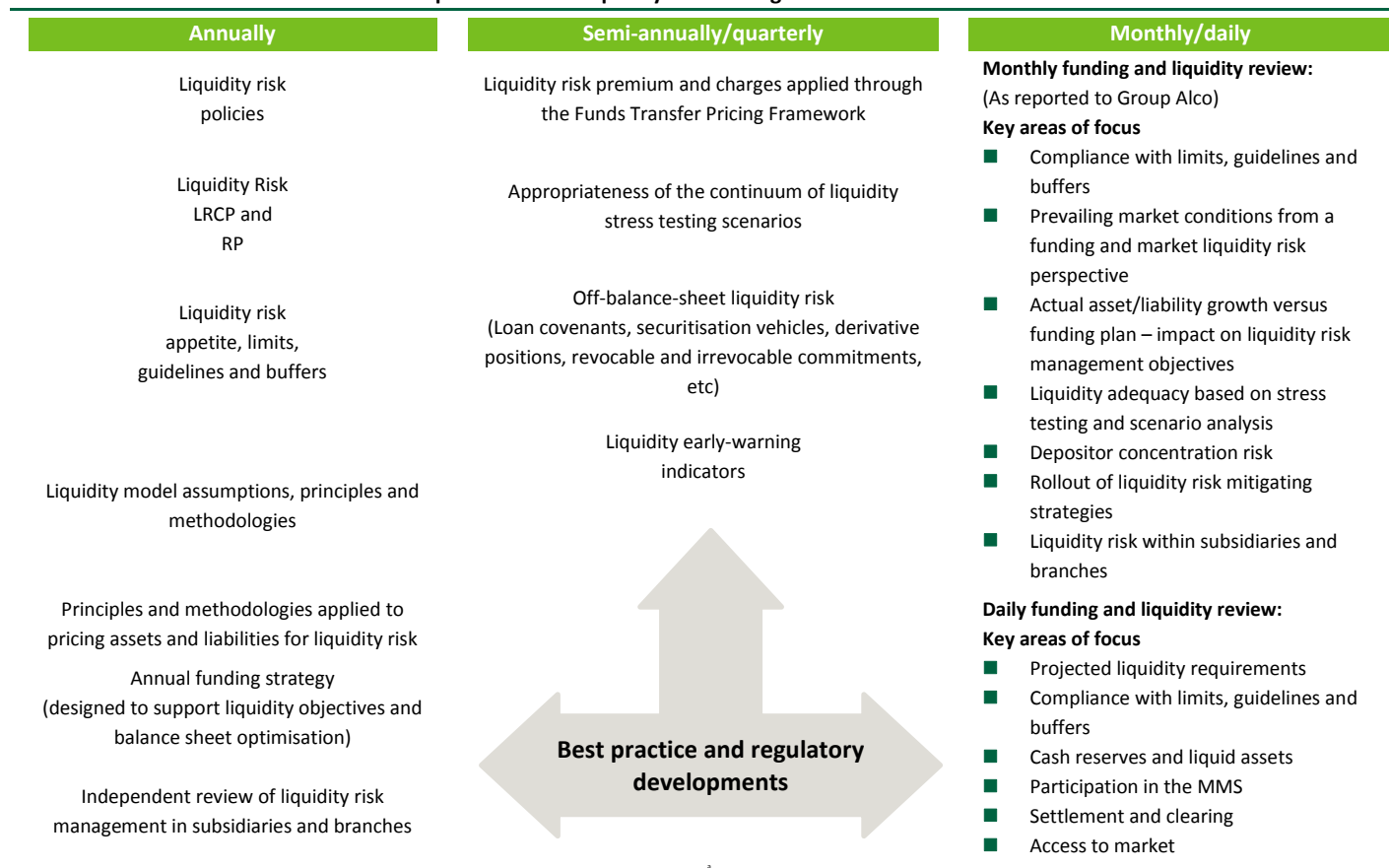


Embedded within the Liquidity Risk Management Framework is Nedbank Group's ILAAP. The ILAAP involves an ongoing and rigorous assessment of Nedbank Group's liquidity self-sufficiency under a continuum of stress liquidity scenarios, taking into consideration the board-approved risk appetite. The ILAAP 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 process is to ensure that the framework remains sound in terms of measuring, monitoring, managing and mitigating liquidity risk, taking cognisance of best practise and regulatory developments.

Based on the most recent internal review process it is evident that Nedbank Group is compliant with the Basel 'Principles for Sound Liquidity Risk Management', with the Liquidity Risk Management Framework and ILAAP fully encapsulating the key principles embedded in the Basel III liquidity standards.

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



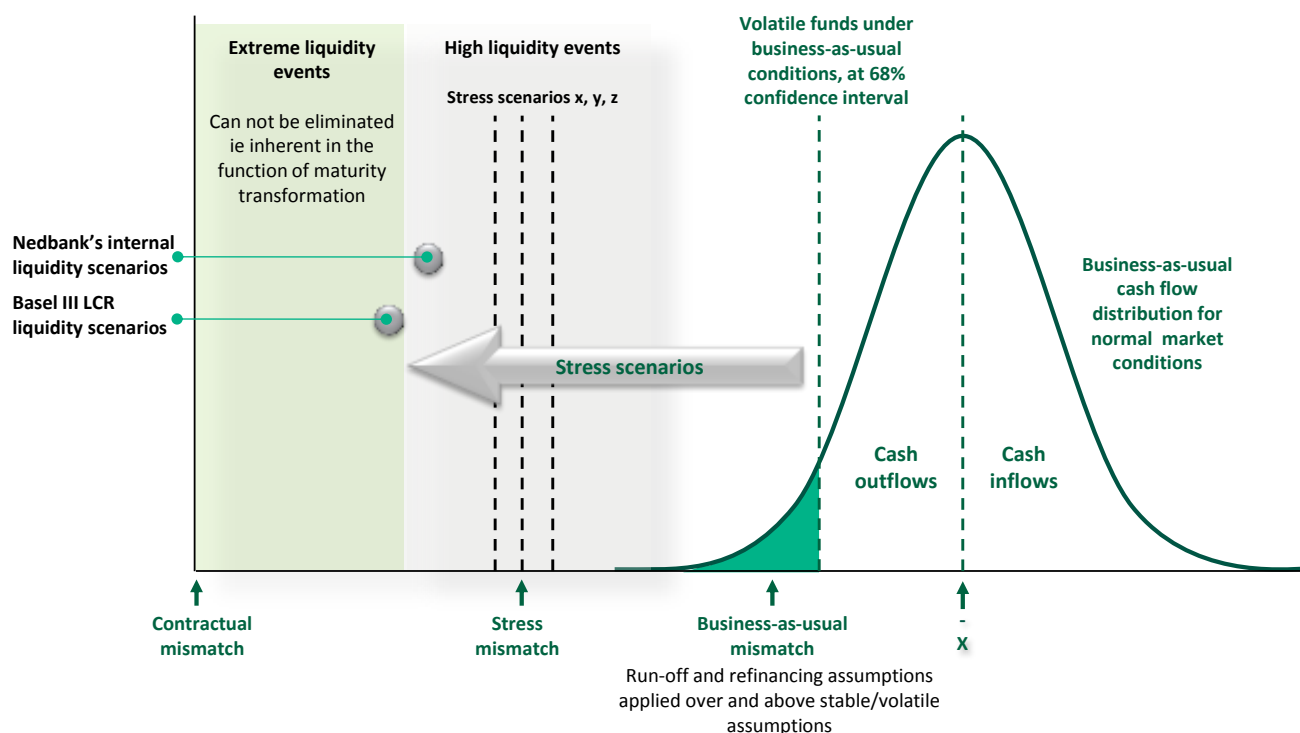
As presented on the previous page, the Liquidity Risk Management Framework is supported by a number of management processes designed to manage and mitigate liquidity risk under normal and stressed market conditions.

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 forecast 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 cash flow 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.
- **Liquidity stress testing and scenario analysis**  
To ensure regulatory compliance and the ability to withstand future liquidity requirements the BSM Cluster performs extensive stress testing and scenario analysis, at both a bank and industry level, in order to appropriately size the liquidity buffer portfolio in the most optimal manner for seasonal, cyclical and/or stress events. The stress testing and scenario analysis focuses on estimating if-and-when the liquidity buffer could be significantly consumed beyond some tolerable level in order to pre-emptively facilitate the formulation of mitigating actions, designed to ensure that the size of the liquidity buffer always remains appropriate for forecast future liquidity requirements.  
Based on the scenario analysis and stress testing described above, which also includes periodic liquidity simulations, the BSM Cluster is able to:
  - 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, thus 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 2016 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 increases 10% per annum to 100% by January 2019. While the Basel III LCR liquidity scenario assumes more extreme levels of stress Nedbank recognises, as per the internally based liquidity risk models, that various structurally favourable factors which contribute 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. As per 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.
- Target a funding profile designed to achieve a contractual and BaU maturity mismatch aligned with board-approved liquidity risk appetite.
- Diversify 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.
- Achieve 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.



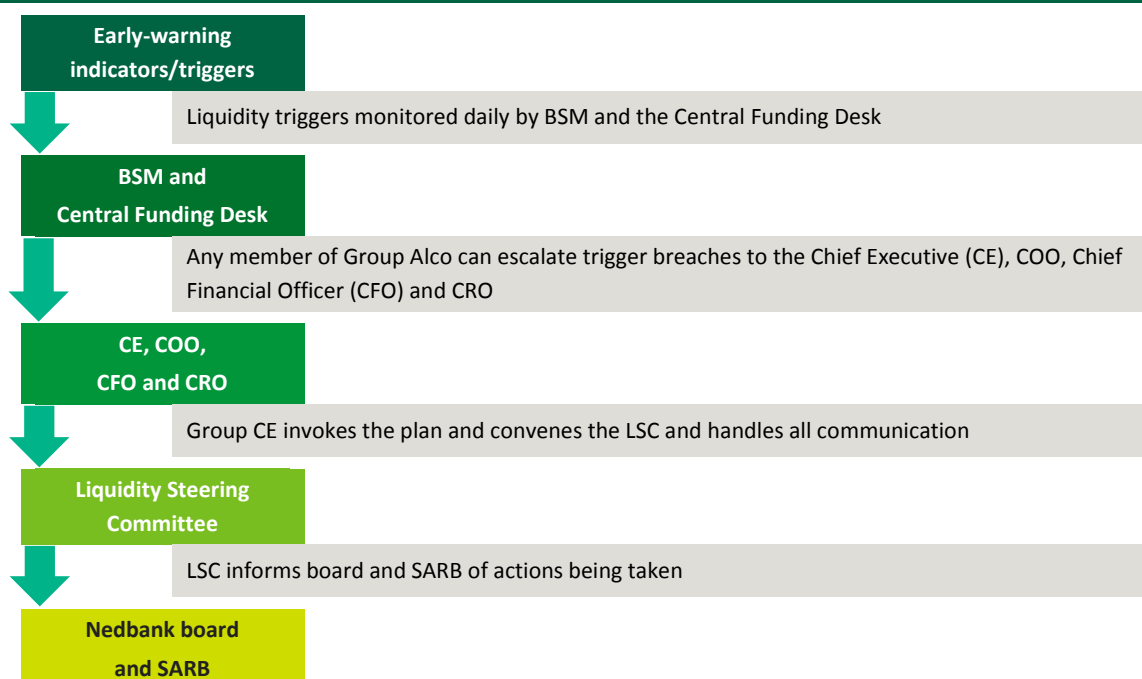
The LRCP has been formulated in the belief that early detection, advance preparations and prompt responses can contribute to liquidity crisis avoidance or minimisation, and that accurate, timely and coordinated communication both internally and externally is essential for managing a crisis situation. 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 developed a detailed RP which sets out Nedbank's framework for dealing with a crisis emanating from a capital, liquidity and business continuity or operational event. These plans were updated in 2016 for Nedbank Group Limited, Nedbank Limited, Nedbank Private Wealth International (based in the IOM) and the London branch of Nedbank Limited. In addition, an RP was developed for Nedbank Namibia. The updated plans have been approved by the group exco and the board, and have been reviewed by SARB.

In terms of Nedbank's Liquidity Risk Management Policy it is a requirement that the LRCP and the RP be periodically tested in order to ensure their effectiveness and operational feasibility. The LRCP and RP were rigorously tested in March 2015 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 areas of improvement identified have been implemented. The process for invoking the LRCP is depicted in the following graphic.

#### 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 imminently 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 and CRO 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

		2016	2015
<b>Total sources of quick liquidity</b>	(Rm)	<b>180 413</b>	160 666
Total HQLA	(Rm)	<b>137 350</b>	117 997
Other sources of quick liquidity	(Rm)	<b>43 063</b>	42 669
Total sources of quick liquidity as a % of total assets	(%)	<b>18,7</b>	17,4
<b>Long-term funding ratio (three-month average)</b>	(%)	<b>29,6</b>	28,7
Retail Savings Bond	(Rm)	<b>19 213</b>	14 476
Senior unsecured debt	(Rm)	<b>35 705</b>	30 797
Total capital market issuance (including senior unsecured debt, tier 2 capital and additional tier 1 capital)	(Rm)	<b>54 076</b>	44 982
<b>Reliance on negotiable certificates of deposit (as a percentage of total deposits)</b>	(%)	<b>11,8</b>	11,3
<b>Reliance on foreign funding (as a percentage of total deposits)</b>	(%)	<b>4,5</b>	6,3
<b>Loan-to-deposit ratio</b>	(%)	<b>92,8</b>	93,9
<b>Basel III liquidity ratios</b>			
LCR <sup>1</sup>	(%)	<b>109,3</b>	88,5
Minimum regulatory LCR requirement	(%)	<b>70</b>	60
NSFR	(%)	<b>&gt; 100</b>	-

<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 70% have been excluded from the aggregated HQLA number in the case of all non-SA banking entities. As per the Basel disclosure requirements, the LCR must be reported as the quarterly average at each reporting date.

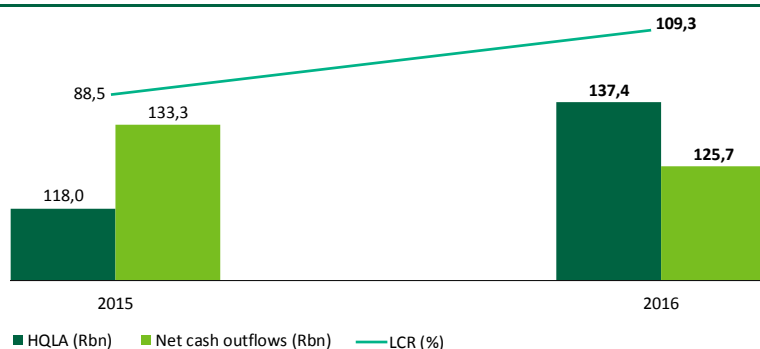
Nedbank Group remains well funded with a strong liquidity position, underpinned by a significant quantum of long-term funding, an appropriately sized surplus liquid-asset buffer, a strong loan-to-deposit ratio consistently below 100% and a low reliance on interbank and foreign currency funding.

The BCBS released its final version of the NSFR in October 2014. On 8 August 2016 SARB released a directive relating to the NSFR in which it confirmed that the ASF factor applicable to wholesale deposits in the 0-to-6-month bucket will be increased from 0% to 35%, to better reflect the stability of these deposits within the SA context. Taking cognisance of the finalised BCBS's NSFR standard and the directive issued by SARB, Nedbank is already compliant with the minimum regulatory requirement that becomes effective on 1 January 2018. The key focus areas relating to the NSFR now centre on finalising a number of small interpretational matters and ensuring that compliance is achieved within the context of ongoing balance sheet optimisation.

Nedbank has successfully implemented the LCR, exceeding the minimum regulatory requirement of 70% for 2016, which then increased to 80% with effect from 1 January 2017. Having embedded this ratio into BaU processes, Nedbank already exceeds the minimum requirements throughout the phase-in period, as the LCR requirement increases by 10% per annum to 100% by 1 January 2019.

- The 2016 LCR, calculated using the simple average of the month-end values for October 2016, November 2016 and December 2016, was 109,3% compared with the December 2015 quarterly average of 88,5%.
  - The total HQLA portfolio increased from a quarterly average of R118,0bn at December 2015 to R137,4bn at December 2016, while the LCR net cash outflows decreased from R133,3bn to R125,7bn over the same period. The decrease in net cash outflows is the result of a positive tilt in the funding base towards more stable transactional deposits, which was further supported by an increase in Nedbank's long-term funding ratio.
  - Nedbank's higher LCR was also attributable to a strategy of positively prepositioning Nedbank for any adverse market conditions that could have arisen, had the rating agencies decided to downgrade SA's sovereign credit rating in December 2016. This was achieved by holding slightly larger liquidity buffers during the months leading up to December 2016.
  - Based on internal risk modelling, Nedbank targets an LCR operational level above the minimum regulatory requirement, designed to absorb normal seasonal and cyclical volatility inherent in the ratio. The actual LCR may therefore fluctuate above or below the operational target from time to time.
  - Nedbank will procure additional HQLAs to support balance sheet growth and the LCR phase-in, while continuing to maintain appropriately sized surplus liquid-asset buffers.

#### Nedbank Group LCR exceeds minimum regulatory requirements

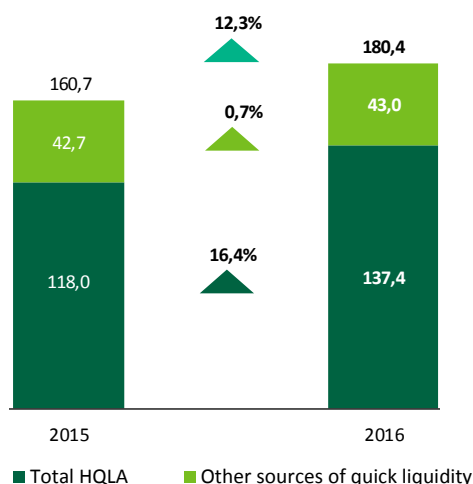


- In addition to the HQLA portfolio maintained for LCR purposes, Nedbank also identifies other sources of stress liquidity, which can be accessed in times of stress. Nedbank's combined portfolio of HQLA and other sources of quick liquidity amounted to R180,4bn at December 2016, representing 18,7% of total assets.

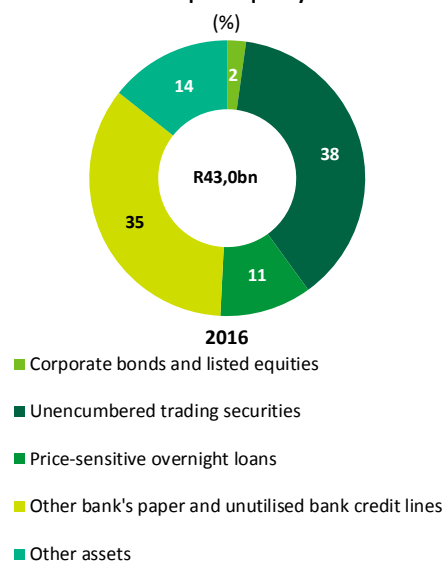
#### Nedbank Group significant sources of quick liquidity

##### Total sources of quick liquidity

(Rbn)



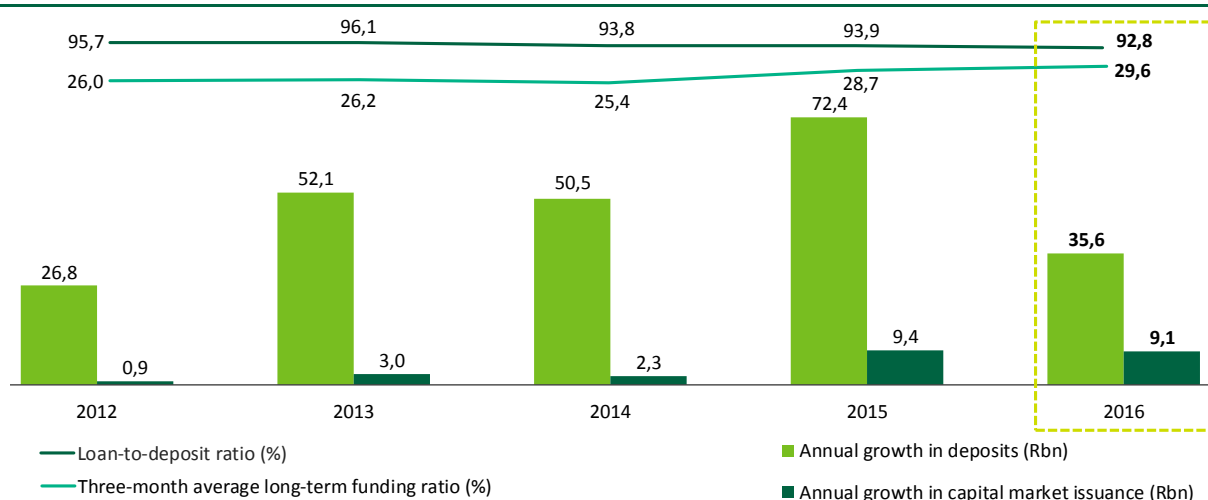
##### Other sources of quick liquidity contribution



- A strong funding profile has been maintained in 2016, with Nedbank recording a three-month average long-term funding ratio of 29,6% in the fourth quarter of 2016 (quarterly average 2015: 28,7%), in line with its strategy of strengthening the liquidity risk profile and prepositioning for a timeous transition to end state Basel III compliance.
  - Nedbank Retail Savings Bonds growth of R4,7bn 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 R19,2bn.
  - In addition, Nedbank successfully issued R10,8bn in senior unsecured debt during 2016, while R5,7bn matured during the year.
  - Nedbank issued new-style additional tier 1 capital instruments of R2,0bn during the year and R2,0bn in new-style tier 2 capital instruments, in line with the group's capital plan.
- Nedbank's reliance on foreign currency funding as a percentage of total deposits remained small at 4,5% (2015: 6,3%), however increasing retail and commercial foreign currency deposits remains a key component of Nedbank's strategy to diversify its funding sources and to fund foreign advances growth.

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

#### Nedbank Group funding and liquidity profile, underpinned by competitive capital markets issuance



## Supplementary liquidity risk information

In accordance with the provisions of section 6(6) of the Banks Act, 1990 (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 net cash outflows and the individual HQLA portfolios, where surplus HQLA holdings in excess of the minimum requirement of 70% have been excluded from the aggregated HQLA number in the case of all non-SA banking entities. The disclosure reflects the simple average of the month-end values at 31 October 2016, 30 November 2016 and 31 December 2016, based on regulatory submissions to SARB.

### NEDBANK GROUP AND NEDBANK LIMITED LIQUIDITY COVERAGE RATIO

2016 Rm	Nedbank Group Limited		Nedbank Limited	
	Total unweighted <sup>1</sup> value (average)	Total weighted <sup>2</sup> value (average)	Total unweighted <sup>1</sup> value (average)	Total weighted <sup>2</sup> value (average)
<b>Total HQLA</b>		<b>137 350</b>		<b>132 856</b>
<b>Cash outflows</b>				
<b>Retail deposits and deposits from small business customers, of which</b>	<b>182 935</b>	<b>18 148</b>	<b>168 571</b>	<b>16 857</b>
Stable deposits	2 900	145		
Less stable deposits	180 035	18 003	168 571	16 857
<b>Unsecured wholesale funding, of which</b>	<b>247 302</b>	<b>121 278</b>	<b>212 079</b>	<b>102 448</b>
Operational deposits (all counterparties) and deposits in institutional networks of cooperative banks	131 570	37 826	113 688	32 685
Non-operational deposits (all counterparties)	115 732	83 452	98 391	69 763
Unsecured debt				
<b>Secured wholesale funding</b>	<b>21 396</b>	<b>42</b>	<b>21 328</b>	<b>42</b>
<b>Additional requirements, of which</b>	<b>87 949</b>	<b>14 208</b>	<b>80 000</b>	<b>11 958</b>
Outflows related to derivatives exposures and other collateral requirements	1 240	1 240	1 126	1 126
Outflows related to loss of funding on debt products	699	699	699	699
Credit and liquidity facilities	86 010	12 269	78 175	10 133
<b>Other contractual funding obligations</b>				
<b>Other contingent funding obligations</b>	<b>196 827</b>	<b>8 789</b>	<b>187 080</b>	<b>8 299</b>
<b>Total cash outflows</b>	<b>736 409</b>	<b>162 465</b>	<b>669 058</b>	<b>139 604</b>
<b>Cash inflows</b>				
<b>Secured lending (eg reverse repos)</b>	<b>14 370</b>	<b>716</b>	<b>14 370</b>	<b>716</b>
<b>Inflows from fully performing exposures</b>	<b>48 114</b>	<b>31 000</b>	<b>31 675</b>	<b>16 906</b>
<b>Other cash inflows</b>	<b>9 944</b>	<b>9 936</b>	<b>4 879</b>	<b>4 879</b>
<b>Total cash inflows</b>	<b>72 428</b>	<b>41 652</b>	<b>50 924</b>	<b>22 501</b>
		<b>Total adjusted value</b>		<b>Total adjusted value</b>
<b>Total HQLA</b>		<b>137 350</b>		<b>132 856</b>
<b>Total net cash outflows<sup>3</sup></b>		<b>125 692</b>		<b>117 103</b>
<b>LCR (%)</b>		<b>109,3%</b>		<b>113,5%</b>

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

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

The contractual and BaU liquidity mismatches of Nedbank Group are presented below.

#### NEDBANK GROUP 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
<b>2016</b>									
Cash and cash equivalents	42 642	1 063	305	142	107	517	308		45 084
Other short-term securities	3 135	3 251	6 923	7 755	11 026	18 105	21 867	12 617	84 679
Derivative financial instruments	39	234	897	1 169	1 168	1 842	1 805	10 479	17 633
Government and other securities			1 966	75	287	943	2 611	45 166	51 048
Loans and advances	59 585	18 556	43 779	13 593	15 951	32 377	54 320	468 916	707 077
Other assets								60 501	60 501
<b>Total assets</b>	<b>105 401</b>	<b>23 104</b>	<b>53 870</b>	<b>22 734</b>	<b>28 539</b>	<b>53 784</b>	<b>80 911</b>	<b>597 679</b>	<b>966 022</b>
Total equity								81 711	81 711
Derivative financial instruments	25	147	564	736	736	1 307	1 345	8 436	13 296
Amounts owed to depositors	360 566	29 160	58 020	78 778	28 289	69 928	66 761	70 040	761 542
Provision and other liabilities	15 342							42 055	57 397
Long-term debt instruments				375	2 350	836	2 610	45 905	52 076
<b>Total equity and liabilities</b>	<b>375 933</b>	<b>29 307</b>	<b>58 584</b>	<b>79 889</b>	<b>31 375</b>	<b>72 071</b>	<b>70 716</b>	<b>248 147</b>	<b>966 022</b>
<b>Net liquidity gap – 2016</b>	<b>(270 532)</b>	<b>(6 203)</b>	<b>(4 714)</b>	<b>(57 155)</b>	<b>(2 836)</b>	<b>(18 287)</b>	<b>10 195</b>	<b>349 532</b>	<b>-</b>
<b>Net liquidity gap – 2015</b>	<b>(255 452)</b>	<b>2 624</b>	<b>13 483</b>	<b>(64 779)</b>	<b>(15 845)</b>	<b>(8 511)</b>	<b>14 558</b>	<b>313 922</b>	<b>-</b>

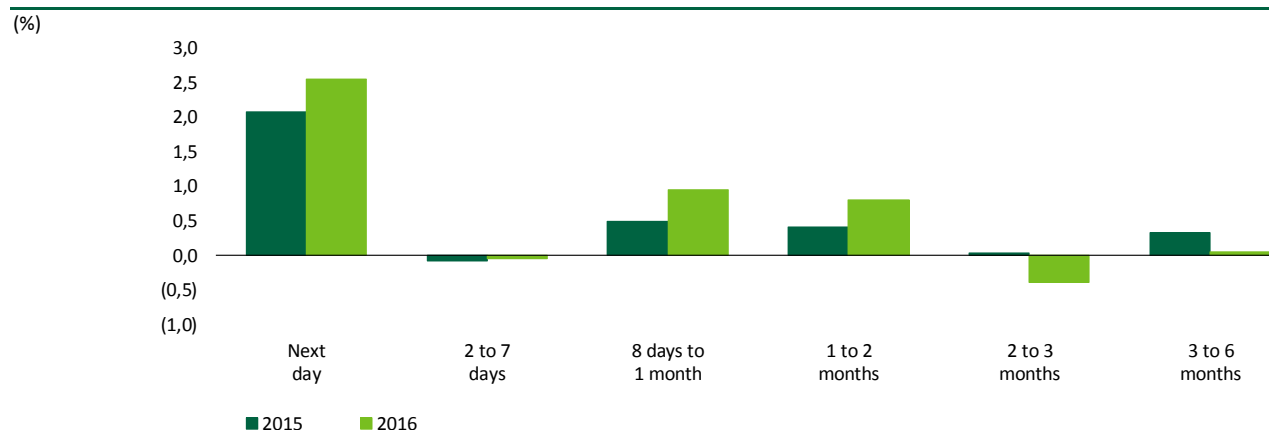
The BaU liquidity gap of Nedbank Group is presented below. The table shows the expected liquidity mismatch under normal market conditions after taking into account the behavioural attributes of stable deposits, savings and investment products and rollover assumptions associated with term deals, but excluding BaU management actions. Based on client behavioural attributes, it is estimated that 93% (December 2015: 94%) of the amounts owed to depositors are stable.

#### NEDBANK GROUP BUSINESS-AS-USUAL 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
<b>2016</b>									
Cash and cash equivalents								45 084	45 084
Other short-term securities	3 135	2 597	3 076	881	1 891	1 649	3 260	68 190	84 679
Derivative financial instruments	39	234	897	1 169	1 168	1 842	1 805	10 479	17 633
Government and other securities								51 048	51 048
Loans and advances	22 413	2 676	35 604	19 581	19 806	47 435	90 878	468 684	707 077
Other assets								60 501	60 501
<b>Total assets</b>	<b>25 587</b>	<b>5 507</b>	<b>39 577</b>	<b>21 631</b>	<b>22 865</b>	<b>50 926</b>	<b>95 943</b>	<b>703 986</b>	<b>966 022</b>
Total equity								81 711	81 711
Derivative financial instruments	25	147	564	736	736	1 307	1 345	8 436	13 296
Amounts owed to depositors	917	5 771	29 883	12 706	23 474	48 198	69 115	571 478	761 542
Provision and other liabilities								57 397	57 397
Long-term debt instruments				375	2 351	836	2 610	45 904	52 076
<b>Total equity and liabilities</b>	<b>942</b>	<b>5 918</b>	<b>30 447</b>	<b>13 817</b>	<b>26 561</b>	<b>50 341</b>	<b>73 070</b>	<b>764 926</b>	<b>966 022</b>
<b>Net liquidity gap – 2016</b>	<b>24 645</b>	<b>(411)</b>	<b>9 130</b>	<b>7 814</b>	<b>(3 696)</b>	<b>585</b>	<b>22 873</b>	<b>(60 940)</b>	<b>-</b>
<b>Net liquidity gap – 2015</b>	<b>19 297</b>	<b>(741)</b>	<b>4 520</b>	<b>3 865</b>	<b>327</b>	<b>3 140</b>	<b>10 363</b>	<b>(40 771)</b>	<b>-</b>

As illustrated below, Nedbank Group's cumulative inflows exceed outflows in the one and two-month time bucket, highlighting the strength of Nedbank's retail and commercial deposit franchise and the associated behavioural stability of these deposits.

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



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

As supplementary information, the tables below depict the contractual and BaU liquidity mismatches in respect of Nedbank Limited, and highlight the split of total deposits into 'stable' and 'more volatile'.

#### 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
<b>2016</b>									
<b>Contractual maturity of assets</b>	<b>97 231</b>	<b>18 151</b>	<b>60 634</b>	<b>20 834</b>	<b>24 862</b>	<b>46 904</b>	<b>74 961</b>	<b>527 219</b>	<b>870 796</b>
Loans and advances	46 830	15 534	36 891	12 093	13 291	27 174	49 558	418 864	620 235
Trading, hedging and other investment instruments	13 548	2 617	23 743	8 741	11 571	19 730	25 403	78 632	183 985
Other assets	36 853							29 723	66 576
<b>Contractual maturity of liabilities</b>	<b>321 196</b>	<b>25 533</b>	<b>59 119</b>	<b>78 247</b>	<b>34 940</b>	<b>72 669</b>	<b>65 834</b>	<b>213 258</b>	<b>870 796</b>
Stable deposits	304 357	18 844	42 788	45 912	21 067	44 832	50 313	80 719	608 832
Volatile deposits	14 655	739	5 288	3 292	3 437	6 462	4 601	6 955	45 429
Trading and hedging instruments	2 184	5 950	11 043	29 043	10 436	21 375	10 920	49 404	140 355
Other liabilities								76 180	76 180
<b>Net liquidity gap – 2016</b>	<b>(223 965)</b>	<b>(7 382)</b>	<b>1 515</b>	<b>(57 413)</b>	<b>(10 078)</b>	<b>(25 765)</b>	<b>9 127</b>	<b>313 961</b>	<b>-</b>
<b>Net liquidity gap – 2015</b>	<b>(217 684)</b>	<b>(745)</b>	<b>16 294</b>	<b>(61 132)</b>	<b>(17 478)</b>	<b>(18 209)</b>	<b>8 428</b>	<b>290 526</b>	<b>-</b>

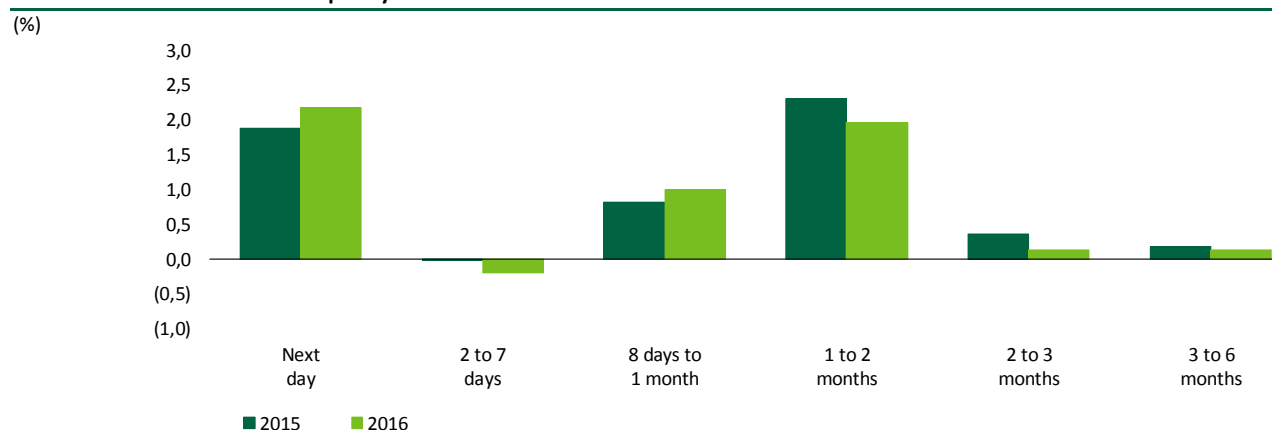
The BaU liquidity gap of Nedbank Limited is presented below. The table shows the expected liquidity mismatch under normal market conditions after taking into account the behavioural attributes of stable deposits, savings and investment products and rollover assumptions associated with term deals, but excluding BaU management actions. Based on client behavioural attributes, it is estimated that 93% (2015: 94%) of the amounts owed to depositors are stable.

#### NEDBANK LIMITED BUSINESS-AS-USUAL 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
<b>2016</b>									
<b>BaU maturity of assets</b>	<b>20 207</b>	<b>4 448</b>	<b>37 449</b>	<b>34 863</b>	<b>24 770</b>	<b>48 150</b>	<b>85 793</b>	<b>615 116</b>	<b>870 796</b>
Loans and advances	19 660	2 347	31 231	17 176	17 374	41 609	79 716	411 122	620 235
Trading, hedging and other investment instruments	547	2 101	6 218	17 687	7 396	6 541	6 077	137 418	183 985
Other assets								66 576	66 576
<b>BaU maturity of liabilities</b>	<b>1 299</b>	<b>6 182</b>	<b>28 709</b>	<b>17 723</b>	<b>23 662</b>	<b>47 027</b>	<b>72 562</b>	<b>673 632</b>	<b>870 796</b>
Stable deposits	190	1 054	7 727	7 685	16 730	34 946	54 777	485 723	608 832
Volatile deposits	598	3 904	17 947	3 231	3 437	6 462	4 601	5 249	45 429
Trading and hedging instruments	511	1 224	3 035	6 807	3 495	5 619	13 184	106 480	140 355
Other liabilities								76 180	76 180
<b>Net liquidity gap – 2016</b>	<b>18 908</b>	<b>(1 734)</b>	<b>8 740</b>	<b>17 140</b>	<b>1 108</b>	<b>1 123</b>	<b>13 231</b>	<b>(58 516)</b>	<b>-</b>
<b>Net liquidity gap – 2015</b>	<b>15 366</b>	<b>(42)</b>	<b>6 660</b>	<b>18 845</b>	<b>2 989</b>	<b>1 479</b>	<b>8 172</b>	<b>(53 469)</b>	<b>-</b>

As illustrated below, Nedbank Limited's cumulative inflows exceed outflows in the one and two month time buckets, highlighting the strength of Nedbank's retail and commercial deposit 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>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 three traditional securitisation transactions and one asset-backed commercial paper (ABCP) programme.

Greenhouse Funding (RF) Limited (Greenhouse I) and Greenhouse Funding III (RF) Limited (Greenhouse III) are securitisations of portfolios of home loans, originated by Nedbank Retail. In both transactions the senior notes issued were placed with SA capital market investors as part of Nedbank Group's funding strategy, whilst the junior notes were retained by the bank. The notes issued in both transactions have been assigned credit ratings by Moody's Investor Ratings Services (Moody's) and are listed on the Johannesburg Stock Exchange Limited (JSE).

Precinct Funding 1 (RF) Limited (Precinct) is a securitisation of commercial property loans originated by Nedbank CIB. The transaction is a further step in the group's strategy to develop capacity to raise funding in the capital markets using different asset classes. The notes issued by Precinct are rated by Moody's and listed on the JSE, with the senior notes being placed with SA capital markets investors and the junior notes being retained by the bank.

Synthesis Funding Limited (Synthesis) is a hybrid multiseller ABCP programme that invests in longer-term-rated asset-backed securities and bonds and offers capital market funding opportunities to SA corporates. These assets are funded through the issuance of short-dated-investment-grade commercial paper to institutional investors. The assets purchased or funded by Synthesis are evaluated as part of the group's credit approval processes applicable to any other corporate or securitisation exposure held by the group. All the commercial paper issued by Synthesis is assigned the highest short-term local currency credit rating by Global Credit Rating Co (GCR).

The exposures to Synthesis that Nedbank assumes, primarily in the form of undrawn liquidity facilities, are measured, from both a regulatory capital and economic capital point of view, using the Supervisory Formula Approach under the IRB Approach for securitisation exposures, thereby ensuring alignment with the methodology adopted across the wider Nedbank Group. The regulatory capital is however capped at the IRB Approach capital that the bank would have held against the underlying assets had they not been securitised, subject to a 20% risk weighting floor. The primary risk assumed by Nedbank through the provision of liquidity facilities to Synthesis is liquidity risk. The liquidity risk associated with these liquidity facilities is included in the stress testing for Nedbank and is managed in accordance with Nedbank's overall liquidity position.

## ASSETS SECURITISED AND RETAINED SECURITISATION EXPOSURE

Rm	Year initiated	Rating agency	Transaction type	Asset type	Assets securitised <sup>1</sup>		Assets outstanding		Amount retained/purchased		Risk-weighted assets <sup>2</sup>	
					2016	2015	2016	2015	2016	2015	2016	2015
Greenhouse I	2007	Moody's <sup>3</sup>	Traditional securitisation	Home loans	2 049	2 049	1 123	1 356	373	376	286	295
Precinct	2013	Moody's	Traditional securitisation	Commercial-property loans	2 344	2 344	982	1 280	489	519	301	438
Greenhouse III	2014	Moody's <sup>3</sup>	Traditional securitisation	Home loans	2 052	2 052	1 708	1 931	291	288	367	327

<sup>1</sup> This includes all assets identified for securitisation at the transaction close.

<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, subject to a 7% risk-weighting floor.

<sup>3</sup> Previously rated by Fitch Ratings (Fitch), Greenhouse I and Greenhouse III are now rated by Moody's.

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

Rm	Year initiated	Rating agency	Transaction type	Asset type	Programme size	Face value of notes outstanding		Liquidity facilities		Risk-weighted assets <sup>1</sup>	
						2016	2015	2016	2015	2016	2015
Synthesis	2004	Global Credit Ratings <sup>2</sup>	ABCP programme	Asset-backed securities, corporate term loans and bonds	15 000	675	2 761	675	2 763	143	586

<sup>1</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, subject to a 20% risk-weighting floor.

<sup>2</sup> Previously rated by Fitch, Synthesis is now rated by GCR. On 20 April 2016, GCR accorded a short-term credit rating of 'A1+(ZA)(sf)' to the securities mentioned above.

The decline from R2 763m to R675m in liquidity facilities provided to Synthesis was due to large asset redemptions within the vehicle.

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
Precinct	✓		✓	✓		✓	✓
Greenhouse I	✓		✓	✓		✓	✓
Greenhouse III	✓		✓	✓		✓	✓
Synthesis		✓	✓		✓	✓	✓



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 remains sound.

Nedbank Group also fulfils a number of secondary roles as liquidity facility provider, hedge counterparty and investor to third-party securitisation transactions.

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 securitisation vehicles and the Precinct securitisation vehicle continue to be recognised on the balance sheet of the bank and the securitisation vehicles are consolidated under Nedbank Group for financial reporting purposes, as is Synthesis.
- 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.
- In line with Nedbank's strategy to diversify its funding base while proactively managing its funding profile Nedbank is likely to securitise a further portion of commercial mortgages in the second half of 2016, assuming pricing and market conditions permit.

Proposed securitisation initiatives undertaken by Nedbank Group follow a rigorous internal approval process and are reviewed for approval by Group Alco, GRMC 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) reflect in the monthly return concerning securitisation schemes (BA500) submitted to the SARB. The processes do not differ for the liquidity facilities provided to Synthesis that are classified as resecuritisation exposures.

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

The tables below show the rating distribution of retained and purchased securitisation exposures.

Rating (national scale) Rm	Securitisation exposure		Greenhouse I exposure		Greenhouse III exposure		Precinct exposure	
	2016	2015	2016	2015	2016	2015	2016	2015
AAA or A1/P1		50					92	
AA+ to AA-		5						
A+ to A-		200	71					101
BBB+ to BBB-				71			114	127
BB+ to BB-								
Unrated		30	302	305	291	288	283	291
Unrated liquidity facilities to ABCP programme	675	2 763						
<b>Total</b>	<b>675</b>	<b>3 048</b>	<b>373</b>	<b>376</b>	<b>291</b>	<b>288</b>	<b>489</b>	<b>519</b>

It should be noted that, while national scale ratings have been used in the tables above, global-scale-equivalent ratings are used for regulatory purposes. These resecuritisation exposures are held in the banking book. Nedbank Group did not securitise any exposures that were impaired or past due at the time of securitisation. No losses were recognised by the bank during the current reporting period.

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 securitisation			
	Group acts as originator	Group acts as sponsor	Group acts as investor	Total
<b>2016</b>				
1 Retail of which	664	411		1 075
2 residential mortgage	664			664
5 re-securitisation		411		411
6 Wholesale of which	489	264		753
7 loans to corporates		202		202
8 commercial mortgages	489			489
9 lease and receivables				
11 re-securitisation		62		62
<b>Total</b>	<b>1 153</b>	<b>675</b>		<b>1 828</b>
<b>2015</b>				
1 Retail of which	664	773		1 437
2 residential mortgage	664			664
5 re-securitisation		773		773
6 Wholesale of which	519	1 990	285	2 794
7 loans to corporates		1 879		1 879
8 commercial mortgages	519			519
9 lease and receivables			285	285
11 re-securitisation		111		111
<b>Total</b>	<b>1 183</b>	<b>2 763</b>	<b>285</b>	<b>4 231</b>

The decline from R2 763m to R675m in liquidity facilities provided to Synthesis was the primary driver of the decline in total exposure from R4 231m to R1 828m. This decline in liquidity facilities was due to large asset redemptions within the vehicle.

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

	Exposure values by RW bands			Exposure values by regulatory approach		RWA by regulatory approach		Capital charge after cap	
	≤ 20% RW	> 50% to 100% RW	> 100% to < 1 250% RW	IRB SFA	SA/SSFA	IRB SFA	SA/SSFA	IRB SFA	SA/SSFA
<b>2016</b>									
1 <b>Total exposures</b>	675	862	291		1 828		1 097		114
3 Securitisation	202	862	291		1 355		965		100
4 of which retail underlying		373	291		664		653		68
5 of which wholesale	202	489			691		312		32
6 Re-securitisation	473				473		132		14
7 of which senior	473				473		132		14
8 of which non-senior									
<b>2015</b>									
1 <b>Total exposures</b>	2 763	895	288	288	3 658	327	1 319	34	135
3 Securitisation	1 879	895	288	288	2 774	327	915	34	94
4 of which retail underlying		376	288	288	376	327	295	34	30
5 of which wholesale	1 879	519			2 398		620		64
6 Re-securitisation	884				884		404		41
7 of which senior	884				884		404		41
8 of which non-senior									

There were no synthetic securitisations (rows 9 – 15) and no exposures in the > 20% to 50% and 1 250% risk-weight bands during the year.

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

	Exposure values by RW bands			Exposure values by regulatory approach		RWA by regulatory approach		Capital charge after cap	
	≤ 20% RW	> 50% to 100% RW	> 100% to < 1 250% RW	IRB RBA (including IAA <sup>1</sup> )	SA/SSFA	IRB RBA (including IAA)	IRB SFA	IRB RBA (including IAA)	IRB SFA
<b>2015</b>									
1 <b>Total exposures</b>	30	243	12	254	31	186	2	19	0,23
3 Of which securitisation	30	243	12	254	31	186	2	19	0,23
4 Of which retail underlying									
5 Of which wholesale	30	243	12	254	31	186	2	19	0,23
6 Of which re-securitisation									
7 Of which senior									
8 Of which non-senior									

<sup>1</sup> IAA = Internal Assessment Approach.

All securitisation exposures where the bank acted as an investor, matured during the year and there were no synthetic securitisations (rows 9 – 15) during the year.

# Market risks

Market risk comprises of 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 that arises from the conversion of the groups/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 comprises:

- The board's GRCMC.
- The Group Alco, which is responsible for ensuring that market risks are being 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) 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 are convened monthly and as required to approve acquisitions and disposals, and on a quarterly basis 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 cluster as well as a representative from GMRM.

The board ultimately approves the market risk appetite and related limits for both the banking (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.

This is evident when reflecting on the group's balance sheet repricing profile before hedging (illustrated from page 93). The balance sheet is clearly asset-sensitive as assets reprice quicker than liabilities due to the extent of prime-linked advances, followed by a repricing of term deposits as they mature out to one year and fixed-rate advances as they mature after that. A net non-rate-sensitive credit balance sheet position remains, which comprises equity, non-repricing transactional deposits, debtors, fixed assets and creditors.

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 on a monthly basis.

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, albeit that larger, longer-dated deposits along with other fixed-rate advances are typically individually hedged. The principle 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 principle 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 via the ALM desk, whereby unwanted IRRBB is passed through a market-making 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 repricing risk longer than one year, unless it elects to lengthen the investment profile of its equity and/or the non-repricing transactional deposit accounts, in order 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 repricing 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 via an established matched maturity funds transfer pricing 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, policies and portfolio review

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 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.

Nedbank Group's interest rate repricing profile graphically represents the repricing of floating-rate assets and liabilities and maturity of fixed-rate assets and liabilities through a repricing time series. The net repricing profile before hedging clearly highlights the asset sensitivity of the group's balance sheet. The net repricing profile after hedging highlights the impact of hedging that better aligns the repricing of assets and liabilities across the curve, with the residual risk largely transferred into the three-month repricing area - clearly depicted graphically before and after hedging.

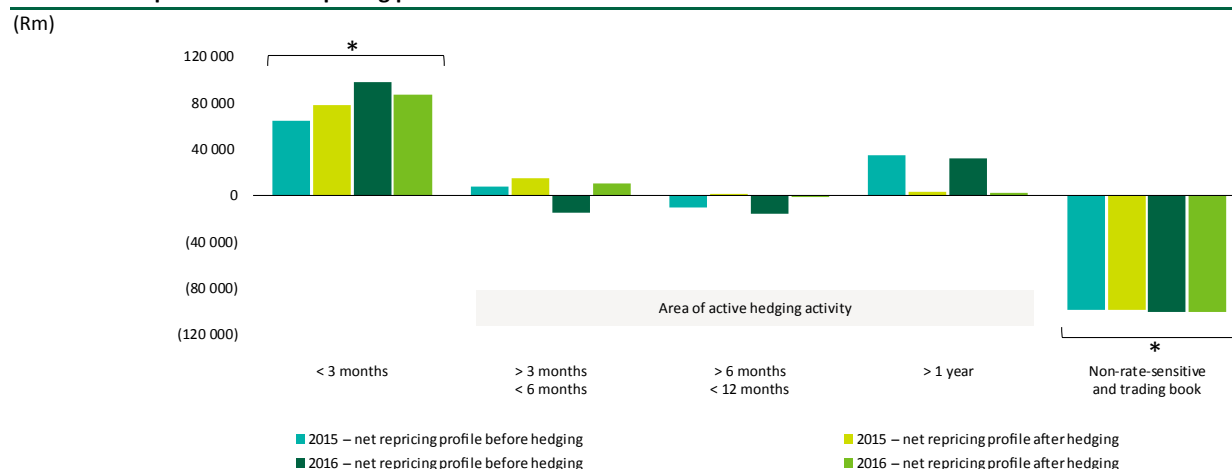
#### NEDBANK GROUP INTEREST RATE REPRICING GAP

Rm	< 3 months	> 3 months < 6 months	> 6 months < 12 months	> 1 year	Non-rate-sensitive and trading book
<b>2016</b>					
Net repricing profile before hedging	98 315	(14 825)	(15 684)	32 725	(100 531)
Net repricing profile after hedging	87 670	10 536	(261)	2 586	(100 531)
Cumulative repricing profile after hedging	87 670	98 206	97 945	100 531	-
<b>2015</b>					
Net repricing profile before hedging	65 001	7 991	(9 867)	35 241	(98 366)
Net repricing profile after hedging	78 446	15 012	1 182	3 726	(98 366)
Cumulative repricing profile after hedging	78 446	93 458	94 640	98 366	-

#### NEDBANK LIMITED INTEREST RATE REPRICING GAP

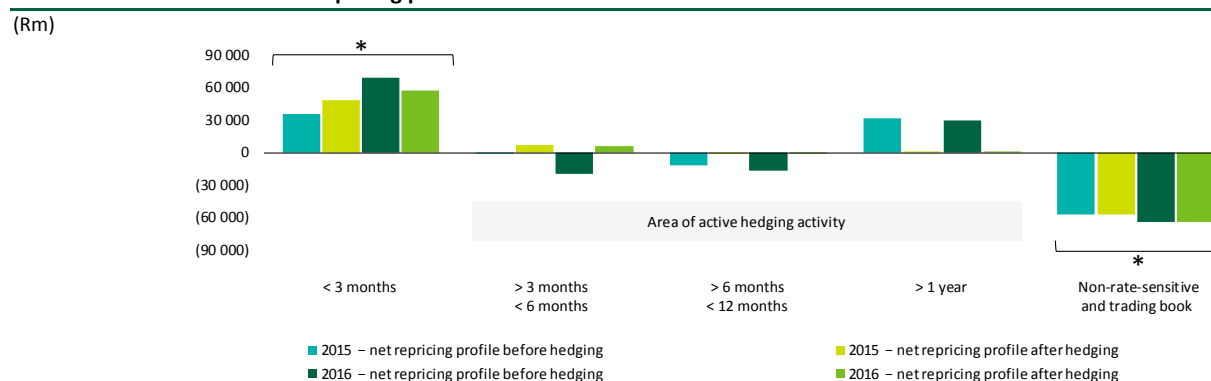
Rm	< 3 months	> 3 months < 6 months	> 6 months < 12 months	> 1 year	Non-rate-sensitive and trading book
<b>2016</b>					
Net repricing profile before hedging	69 369	(19 247)	(16 452)	30 331	(64 001)
Net repricing profile after hedging	57 364	6 039	(485)	1 083	(64 001)
Cumulative repricing profile after hedging	57 364	63 403	62 918	64 001	-
<b>2015</b>					
Net repricing profile before hedging	36 319	(568)	(11 289)	32 106	(56 568)
Net repricing profile after hedging	49 224	7 023	(650)	971	(56 568)
Cumulative repricing profile after hedging	49 224	56 247	55 597	56 568	-

#### Nedbank Group interest rate repricing profile



\* Non-rate-sensitive capital, working capital and transactional deposit accounts expose the balance sheet to sensitivity as the rest of the balance sheet is positioned to be repriced in < 3 months.

#### Nedbank Limited interest rate repricing profile



\* Non-rate-sensitive capital, working capital and transactional deposit accounts expose the balance sheet to sensitivity as the rest of the balance sheet is positioned to be repriced in < 3 months.

Nedbank's interest rate repricing profile graphically represents the repricing of floating-rate assets and liabilities and the maturity of fixed-rate assets and liabilities through a repricing time series. The net repricing profile before hedging clearly highlights the following:

- Asset sensitivity in the < 3-month repricing bucket, largely as a result of prime-linked advances.
- Liability sensitivity in the > 3-month to < 12-month repricing buckets, largely as a result of fixed-rate term funding offset, to some extent with on-balance-sheet fixed rate treasury bills accumulated as part of the prudential and LCR requirements.
- Asset sensitivity in the > 1-year repricing bucket, as a result of longer-dated fixed-rate advances and government securities partially offset by fixed-rate deposits and debt raised beyond one year.

The net repricing profile after hedging highlights the impact of hedging strategies that better aligns the repricing of assets and liabilities across the curve. The residual risk position consists of a net endowment position, and short-term reprice risk between prime and JIBAR resets after hedging.

## SENSITIVITY ANALYSIS

At December 2016 the NII sensitivity of the group's banking book for a 1% parallel reduction in interest rates measured over 12 months is 1,81% of total group ordinary shareholders' equity (OSE) (2015: 1,61%), which is within the board's approved risk limit of < 2,25%.

This exposes the group to a decrease in NII of approximately R1 367m before tax, should interest rates change by 1%, 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 -R13m at 2016 (2015: R188m).

- 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.

## EXPOSURE TO INTEREST RATE RISK

Rm	Note	Nedbank Limited		Other Group Companies		Nedbank Group	
		2016	2015	2016	2015	2016	2015
<b>NII sensitivity</b>	1						
1% instantaneous decline in interest rates		(1 076)	(980)	(291)	(224)	(1 367)	(1 204)
2% instantaneous decline in interest rates		(2 128)	(1 932)	(565)	(384)	(2 693)	(2 316)
<b>Basis interest rate risk sensitivity</b>	2						
0,25% narrowing of prime/call differential		(218)	(327)	(9)	(6)	(227)	(333)
<b>EVE sensitivity</b>	3						
1% instantaneous decline in interest rates		(13)	188	n/a	n/a	n/a	n/a
2% instantaneous decline in interest rates		(28)	396	n/a	n/a	n/a	n/a
<b>NII sensitivity</b>							
Instantaneous stress shock <sup>1</sup>	4	(5 277)	(4 881)	n/a	n/a	n/a	n/a
Instantaneous stress shock modelled as a ramp <sup>1</sup>	5	(4 901)	(4 288)	n/a	n/a	n/a	n/a

<sup>1</sup> Stressed interest rate changes.

n/a: not modelled.

### Notes

1. **NII sensitivity**, as currently modelled, exhibits very little convexity. In certain cases the comparative figures have been estimated assuming a linear risk relationship to the interest rate moves.
2. **Basis interest rate risk sensitivity** is quantified using a narrowing in the prime/call interest rate differential of 0,25% and is an indication of the sensitivity of the margin to a squeeze in short-term interest rates.
3. **EVE sensitivity** is calculated as the net present value of asset cashflows less the net present value of liability cashflows.
4. The **instantaneous stress shock** is derived from the principles espoused in the BCBS's paper 'Principles for the Management and Supervision of Interest Rate Risk'. 1<sup>st</sup> and 99<sup>th</sup> percentile observed interest rate changes over a five-year period with a one-year holding period have been used.
5. The **instantaneous stress shock** modelled as a ramp uses the same interest rate shock as the instantaneous stress shock described above, but the rate shock is phased in over an eight-month period.

## Liquid asset portfolios

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

Risk strategies comprise on- and off-balance-sheet components whereby the associated interest rate risk of the group's liquid asset portfolios is used to reduce the repricing sensitivity associated with its fixed rate term funding and long-term debt, to manage opposing basis risk on such debt, or is hedged using derivative positions removing the associated repricing risk.

Alternatively, where the associated risk cannot be used within the banking book, such risk is transferred through market risk limits into the trading book.

### NEDBANK LIMITED'S LIQUID ASSET PORTFOLIOS: ACCOUNTING CLASSIFICATION

Rm	Notional <sup>1</sup>	Designated at fair value through profit or loss	Available-for-sale financial assets	Held-to-maturity investments
<b>2016</b>				
Government and other securities <sup>2</sup>	34 158	12 716	270	21 172
Other short-term securities <sup>3</sup>	58 186	23 910		34 276
<b>Total</b>	<b>92 344</b>	<b>36 626</b>	<b>270</b>	<b>55 448</b>
<b>2015</b>				
Government and other securities <sup>2</sup>	35 021	17 324	270	17 427
Other short-term securities <sup>3</sup>	52 435	18 575		33 860
<b>Total</b>	<b>87 456</b>	<b>35 899</b>	<b>270</b>	<b>51 287</b>

<sup>1</sup> Nedbank Limited banking book liquid asset portfolios.

<sup>2</sup> Government bonds.

<sup>3</sup> Treasury bills.

Nedbank's liquid asset portfolios accounting treatment is determined by the group's interest rate risk management strategies in order to align the accounting thereof with the economic substance of risk management.

## Held-to-maturity investments (accrual accounted)

The accrual-accounted liquid asset portfolios are not impacted by changes in the yield curve as these portfolios are designated held-to-maturity and carried at book value.

These portfolios are used as an on-balance-sheet interest rate risk hedge for the bank's fixed rate term funding, longer-dated senior unsecured debt and subordinated debt (also carried at book value).

This designation is also used when liquid assets are held for strategic positioning of the balance sheet based on Group Alco's interest rate forecast and IRRBB and impairment sensitivity levels.

## Liquid assets designated at fair value through profit and loss (fair value accounted)

The fair-value-accounted liquid asset portfolios are risk managed using interest rate swaps. These portfolios are managed within board approved MtM limits covering both parallel and basis shifts between the bond and the swap curve.

The banking book has limited appetite for basis risk and, where possible, offsets the basis risk on the liquid asset portfolio against opposing basis risk positions on the balance sheet (ie basis risk on liquid assets versus basis risk on the subordinated debt) before transferring the residual basis risk into trading limits.

## Sensitivity

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

2016	Notional Rm	PV01 <sup>1</sup> no risk management Rm	PV01 <sup>1</sup> with risk management Rm
<b>Government and other short-term securities</b>			
<b>Designated fair value through profit or loss and AFS</b>	36 896	(5,20)	(0,40)
Risk-managed with derivatives	36 896	(5,20)	(0,40)
<b>Held-to-maturity investments</b>	55 448	(10,0)	0,42
Risk-managed with long-term debt instruments with similar designation	16 285	(7,60)	0,22
Risk-managed with fixed-rate term funding	39 163	(2,40)	0,20
<b>Total</b>	<b>92 344</b>	<b>(15,20)</b>	<b>0,02</b>
<b>Risk management effectiveness</b>			<b>100,1%</b>

<sup>1</sup> The change in the price of an instrument if the yield curve changes by one basis point.

The interest rate risk sensitivity has been reduced by 100,1% through on- and of-balance sheet risk management strategies.



## 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, precious and base metals.
- Foreign exchange rate risk results from exposure to changes in spot prices, forward prices and volatilities 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 detail, ranging from individual trader-level right 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 timeously resolved.

## 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 arising 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 pre-tax 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 reflects, at a 99% confidence level, that 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 VaR's 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 in 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 analysis 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 on portfolio values of extreme moves in markets, 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 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 final version of the BCBS's minimum capital requirements for market risk (previously referred to as FRTB) regulation was released in January 2016. Nedbank participated in the QIS after the release of this regulation and will participate in any further calibration exercises thereafter.

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 1% of the group RWA, and therefore the MR1 table has not been included in this report as it would not be meaningful and value-adding to the user.

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

Rm	VaR	Stressed VaR	Total RWA
<b>2016</b>			
1 RWA at previous quarter end	6 206	7 935	14 141
2 Movement in risk levels	928	(662)	266
6 Foreign exchange movements	669	341	1 010
<b>8 RWA at the end of reporting period</b>	<b>7 803</b>	<b>7 614</b>	<b>15 417</b>

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

	Foreign exchange	Interest rate	Credit	Commodity	Diversification <sup>2</sup>	Total VaR
<b>2016</b>						
<b>VaR (10-day 99%)<sup>3</sup></b>						
1 Maximum value <sup>4</sup>	126,5	161,4	34,4	8,4		314,3
2 Average value	69,3	75,6	24,3	1,0	(26,3)	143,9
3 Minimum value <sup>4</sup>	36,3	33,3	17,0	< 1		72,5
4 Period end	80,3	77,2	28,7	< 1	(44,8)	141,5
<b>Stressed VaR (10-day 99%)<sup>3</sup></b>						
5 Maximum value <sup>4</sup>	139,3	179,6	85,8	5,6		280,9
6 Average value	85,9	118,5	52,0	< 1	(68,0)	189,0
7 Minimum value <sup>4</sup>	42,0	84,5	27,1	< 1		118,7
8 Period end	115,3	108,5	80,4	< 1	(107,1)	197,1
<b>2015</b>						
<b>VaR (10-day 99%)<sup>3</sup></b>						
1 Maximum value <sup>4</sup>	56,4	70,7	36,6	7,6		132,6
2 Average value	10,1	23,1	22,2	1,2	(16,5)	40,1
3 Minimum value <sup>4</sup>	1,8	12,0	15,4	< 1		23,4
4 Period end	56,1	67,6	29,0	5,4	(27,8)	130,3
<b>Stressed VaR (10-day 99%)<sup>3</sup></b>						
5 Maximum value <sup>4</sup>	76,0	140,0	115,8	5,9		263,7
6 Average value	27,0	79,0	50,1	< 1	(51,4)	105,3
7 Minimum value <sup>4</sup>	4,2	36,9	22,9	< 1		58,0
8 Period end	70,9	109,3	43,9	5,2	(89,8)	139,5

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

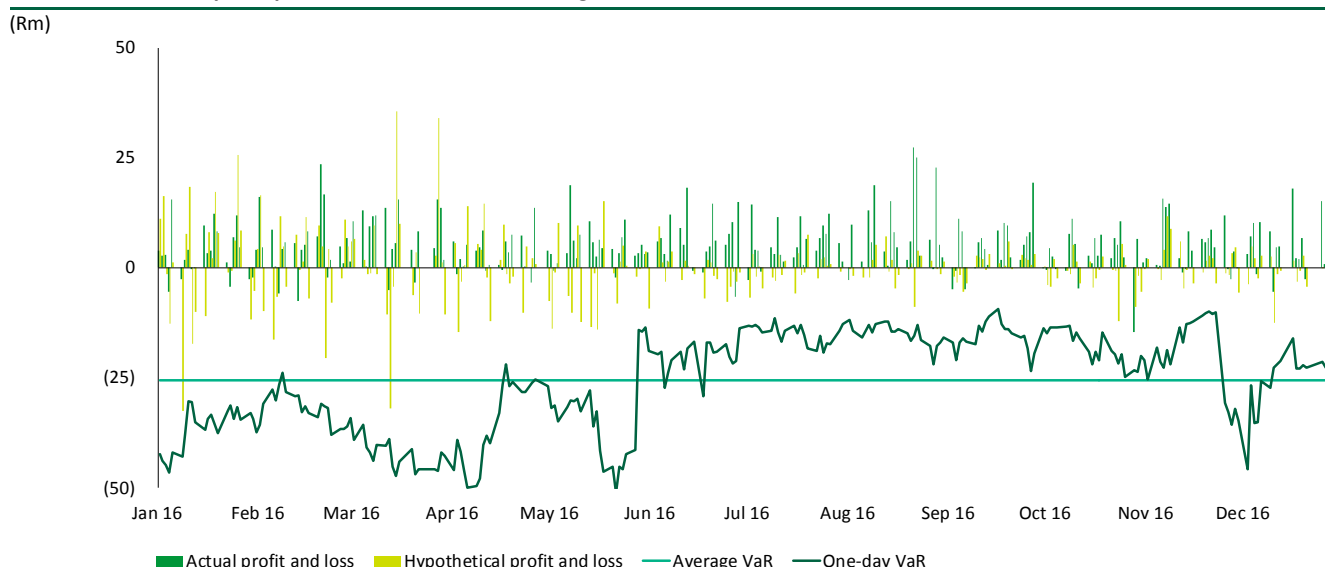
<sup>2</sup> Diversification benefit is the difference between the aggregate VaR and the sum of VaRs for the four risk types. This benefit arises because the simulated 99% one-day loss for each of the four primary market risk types occurs on different days.

<sup>3</sup> A summary of the 10-day 99% stressed VaR from January 2016 to December 2016. 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. It is calculated using a 99% confidence interval for a one-day holding period and then scaled to a 10-day holding period.

<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.

## Backtesting – Daily trading revenue and VaR

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



The average daily VaR exposures increased during 2016, as the trading desk continued to hedge CVA/DVA sensitivities. Under the Basel II.5 Market Risk Framework, no offset is recognised between CVA/DVA sensitivities and the corresponding hedges traded to reduce income volatility. At the end of May 2016 these hedges were removed from the Nedbank Market Risk Framework and are now monitored in a separate CVA Framework, resulting in the end-of-period VaR exposure decreasing, notably for interest rates and foreign exchange VaR exposures. Equity VaR increased slightly on the back of continued growth in client facilitation and volatility in the underlying risk factor. Credit VaR remained fairly static during the course of the year.

The year was characterised by both local as well as global macroeconomic factors driving higher levels of volatility across all asset classes. The SA rand reached its lowest level against the major currencies during the first quarter of 2016, with a recovery in the second quarter. Emerging-market economies, including SA, attracted capital inflows supporting local interest rates and currencies.

The graph above illustrates the daily normal VaR for the 12-month period ended December 2016. Nedbank Group remained within the approved risk appetite and VaR limits allocated by the board, which remain low, with trading market risk consuming only 0,5% and 3,4% 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 backtesting exceptions in the period under review.

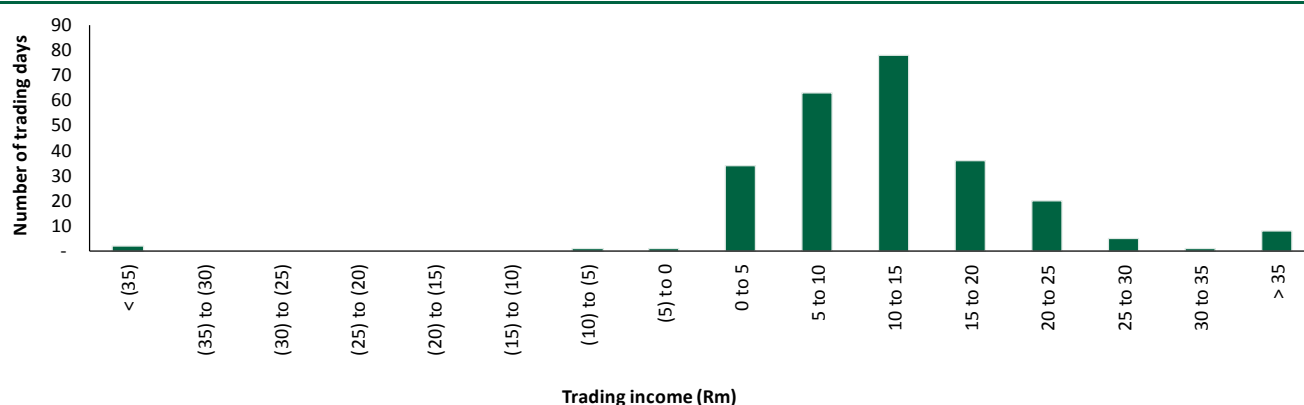
## Analysis of trading revenue

The year was characterised by a positive contribution from most business lines, which resulted in strong financial performance, notably from the fixed-income and foreign exchange areas.

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 being realised on 245 days out of a total of 249 days in the period.

The average daily trading revenue generated for the period, excluding revenue related to investment banking, was R11,5m (2015: R11,1m).

### Nedbank Group analysis of trading revenue for the 12-months ended December 2016



## Stress testing results

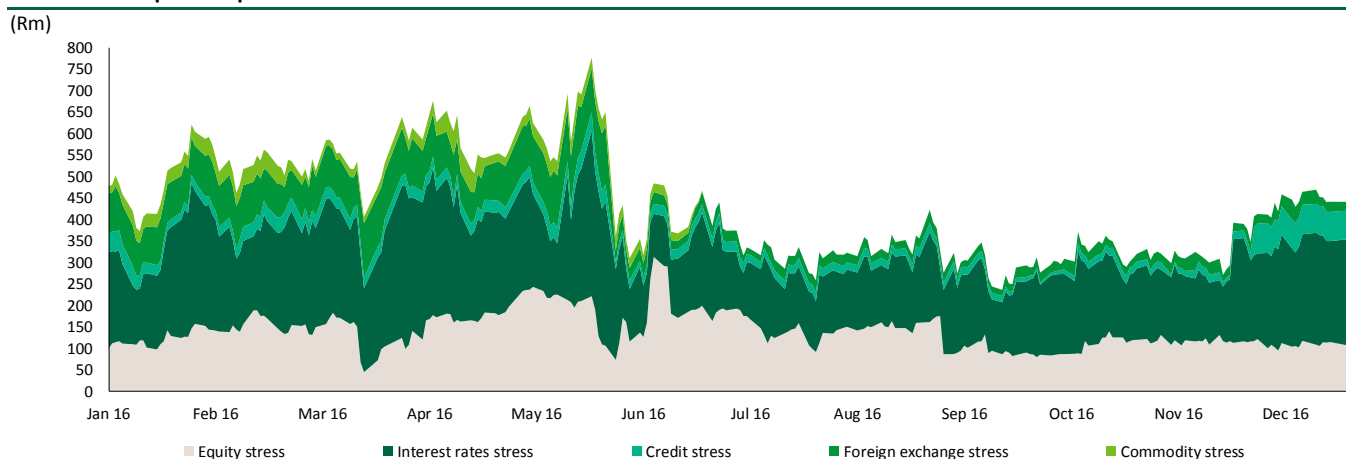
The table below summarises the daily stress testing results for December 2016 and December 2015, which represent a set of extreme market movements as applied to the trading activities.

### NEDBANK GROUP RISK EXPOSURES PER RISK FACTOR

	Average	High <sup>1</sup>	Low <sup>1</sup>	End of period
<b>2016</b>				
Foreign exchange stress	52	137	13	14
Interest rate stress	199	386	97	233
Equity stress	140	312	44	110
Credit spread stress	26	70	5	66
Commodity stress	13	55	< 1	< 1
<b>Overall</b>	<b>430</b>	<b>776</b>	<b>236</b>	<b>423</b>
<b>2015</b>				
Foreign exchange stress	49	175	2	92
Interest rate stress	125	287	36	205
Equity stress	207	361	61	99
Credit spread stress	72	89	41	45
Commodity stress	3	23	< 1	10
<b>Overall</b>	<b>456</b>	<b>672</b>	<b>134</b>	<b>451</b>

<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 12-months ended December 2016



## Nedbank Group trading book stressed VaR

As part of the Basel II.5 update to the Banks Act regulations, stressed VaR is calculated using market data taken over a period through which the relevant market factors were experiencing stress. Nedbank Group uses historical data from the period 1 July 2008 to 30 June 2009 as this period captures significant volatility in the SA market.

The information in the table below is the comparison of the VaR using three different calculations at 31 December 2016. The three different calculations are historical VaR, ETL and stressed VaR. The 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
<b>2016</b>			
Foreign exchange	2,8	3,3	4,1
Interest rates	11,4	37,3	12,2
Equities	2,2	15,5	2,4
Credit	8,4	14,3	17,3
Commodities	< 0,1	< 0,1	< 0,1
Diversification	(8,5)	(16,9)	(12,6)
<b>Total VaR exposure</b>	<b>16,3</b>	<b>53,5</b>	<b>23,4</b>
<b>2015</b>			
Foreign exchange	3,2	22,4	20,6
Interest rates	7,4	36,7	50,6
Equities	3,4	20,6	6,4
Credit	7,0	13,9	13,3
Commodities	0,4	1,7	1,8
Diversification	(7,8)	(42,0)	(21,7)
<b>Total VaR exposure</b>	<b>13,6</b>	<b>53,3</b>	<b>71,0</b>

## Foreign currency translation risk in the banking book

FCT risk is the risk that the bank's capital will lose value as a result of shifts in the exchange rate.

### NEDBANK GROUP OFFSHORE CAPITAL SPLIT BY FUNCTIONAL CURRENCY

\$m (US dollar equivalent)	2016			2015		
	Forex-sensitive	Non-forex-sensitive	Total	Forex-sensitive	Non-forex-sensitive	Total
US dollar	497		497	651		651
Pound sterling	138		138	145		145
Malawi kwacha	5		5	5		5
Mozambican metical	37		37	23		23
Other		563	563		521	521
<b>Total</b>	<b>677</b>	<b>563</b>	<b>1 240</b>	<b>824</b>	<b>521</b>	<b>1 345</b>
<b>Limit</b>	<b>1 100</b>			<b>1 000</b>		

Foreign-denominated equity in subsidiaries and associates has decreased by 17,8% to US\$677m in 2016 (2015: US\$824m), primarily due to a decrease in the value of the investment made in ETI (-US\$175m) as a result of Nedbank's share of ETI's FCT losses (largely due to the weakness in the Nigerian naira and Ghanaian cedi against the US dollar) and an impairment of the investment of -R1,0bn (-US\$72,6m).

The total RWA for the group's foreign entities is R40,5bn, which is low at approximately 8,0% of total RWA, and as FCTR qualifies as regulatory capital, any foreign exchange rate (ZAR to foreign currencies) movement will have a minimal effect on Nedbank Group's capital adequacy, as a result of translation movements impacting both the supply and demand side of the capital components of the capital ratio.

## Equity risk in the banking book

		2016	2015
Total equity portfolio	(Rm)	10 166	13 136
Disclosed at fair value	(Rm)	5 956	4 719
Equity-accounted	(Rm)	4 210	8 417
% of total assets	(%)	1,1	1,4
% of group minimum economic capital requirement	(%)	4,6	5,2

Equity investments in the banking book are primarily undertaken by Nedbank CIB. Any additional investments are undertaken as a result of operational or strategic requirements.

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. Equity investments that are accounted for under the equity method of accounting total R4 210m (2015: R8 417m). During the reporting period, Nedbank acquired control of Banco Único and accordingly this previously equity-accounted investment has been consolidated from 3 October 2016.

### ACCOUNTING RECOGNITION OF ETI

Rm	2016	2015
Opening carrying value	7 808	6 344
Share of associate (loss)/earnings <sup>1,2</sup>	(125)	870
Share of other comprehensive income <sup>1,2</sup>	(1 700)	(229)
FCT <sup>3</sup>	(829)	823
Dividends and other <sup>4</sup>	(176)	–
Subtotal	4 978	7 808
Impairment provision	(1 000)	–
<b>Closing carrying value</b>	<b>3 978</b>	<b>7 808</b>
<b>Regulatory capital summary</b>		
Closing carrying value	3 978	7 808
Amount above 10% threshold deduction	324	3 604
Amount within 10% threshold deduction, risk weighted at 250%*	3 654	4 204
*Amount included within RWA	9 135	10 510

<sup>1</sup> Applicable period: 1 October 2015 – 30 September 2016.

<sup>2</sup> Applicable average exchange rate: 1 January 2016 – 31 December 2016.

<sup>3</sup> Applicable period: 1 January 2016 – 31 December 2016; ie the cumulative difference at each quarter of the earnings and other comprehensive income converted at an average USD/ZAR rate compared to the related US dollar balances converted at the quarter-end spot rate.

<sup>4</sup> Applicable average exchange rate: Spot rate and date accrued.

The carrying value of Nedbank Group's strategic investment in ETI decreased from R7,8bn to R4,0bn during the year, due to a combination of FCT losses arising from the naira devaluation and therefore ETI's balance sheet decreasing in US dollars, the rand strengthening against the US dollar, our share of losses incurred by ETI during the 12 months to 30 September 2016, as well as an impairment provision of R1,0bn.

The market value of the group's investment in ETI, based on its quoted share price, was R2,4bn on 31 December 2016 and R2,1bn on 24 February 2017. The ETI share trades in low volumes, given its low free float, while also being listed in an illiquid market. The difference between market value and carrying value is significant and prolonged, which has represented evidence of an impairment indicator at 31 December 2016.

Where there is an impairment indicator, IFRS determines that an impairment test be computed, which compares the value in use (VIU) and the carrying value of the investment. The computation of the VIU in accordance with IFRS is subject to significant judgement as it is based on, inter alia, economic estimates, macro assumptions and the discounting of future cashflow estimates. This is particularly complicated in the current economic environment in many of the jurisdictions in which ETI operates and with the limited public information available. As a result, management has computed the VIU based on a number of scenarios by taking into account publicly available information. Based on the results of this VIU calculation, management determined that an impairment provision of R1,0bn was appropriate. This has reduced the carrying value of the group's investment to R4,0bn at 31 December 2016.

This calculation is required to be revisited at each reporting period, where the indicators of impairment would be reconsidered and the VIU calculation would be reassessed taking into account any future changes in estimates and assumptions.

## 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 an individual counterparty level and approved within the Group Credit Risk Management Framework. CCR exposures are reported and monitored at both a business unit and group level. There is continued emphasis on the use of credit risk mitigation 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 only applied to underlying exposures where supportive legal opinion is 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 over-the-counter (OTC) derivative counterparties.

The decrease in the replacement cost of interest rate swap and foreign exchange derivative products since December 2015, was driven by the valuation of these products, attributable to the relative strengthening of the rand against major currencies and a slight flattening of the yield curves.

### CCR1: ANALYSIS OF COUNTERPARTY CREDIT RISK EXPOSURE BY APPROACH

Rm	Replacement cost	Potential future exposure	EAD post- CRM	Risk-weighted assets <sup>1</sup>
<b>2016</b>				
1 CEM CCR (for derivatives)	8 345	5 827	12 038	4 748
4 Comprehensive Approach for credit risk mitigation (for SFT)			1 560	320
<b>6 Total</b>	<b>8 345</b>	<b>5 827</b>	<b>13 598</b>	<b>5 068</b>
<b>2015</b>				
1 CEM CCR (for derivatives)	14 851	6 468	13 647	4 447
4 Comprehensive Approach for credit risk mitigation (for SFT)			1 982	301
<b>6 Total</b>	<b>14 851</b>	<b>6 468</b>	<b>15 629</b>	<b>4 748</b>

<sup>1</sup> CCR RWA excluding CVA capital charge (refer CCR2) and central counterparty (CCP) related RWA (refer CCR8).

Rows two, three and five are excluded from the CCR1 disclosure as the Internal Model Method [for derivatives and securities financing transactions (SFT)], the Simple Approach for credit risk mitigation (for SFT) and VaR for SFT are not applicable to the group.

Nedbank continues to actively manage earnings volatility arising from its revaluation risk of CVA exposure from its trading activities in order to ensure this class of risk is managed within the bank's defined risk appetite. The CVA RWA increased from R6,9bn in 2015 to R10,6bn in 2016, largely as a result of new client hedging activities, in part related to Nedbank's participation in renewable-energy funding.

### CCR2: CREDIT VALUATION ADJUSTMENT CAPITAL CHARGE

Rm	2016		2015	
	EAD post- CRM	Risk-weighted assets	EAD post- CRM	Risk-weighted assets
3 All portfolios subject to the Standardised CVA capital charge	12 038	10 608	13 647	6 904
<b>4 Total subject to the CVA capital charge</b>	<b>12 038</b>	<b>10 608</b>	<b>13 647</b>	<b>6 904</b>

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, Nedbank Private Wealth (UK) operations are covered by TSA.

### CCR3: STANDARDISED APPROACH – CCR EXPOSURES BY REGULATORY PORTFOLIO AND RISK WEIGHTS

Regulatory portfolio	Risk weights				Total credit exposure
	0%	20%	50%	100%	
<b>2016</b>					
Banks	10	5	1		16
Corporates				21	21
Regulatory retail portfolios				12	12
<b>Total</b>	<b>10</b>	<b>5</b>	<b>1</b>	<b>33</b>	<b>49</b>
<b>2015</b>					
Banks		3	42		45
Corporates				75	75
Regulatory retail portfolios					
<b>Total</b>		<b>3</b>	<b>42</b>	<b>75</b>	<b>120</b>

There were no exposures in the 10%, 75% and 150% risk weight buckets as at 31 December 2016.

There were no exposures to sovereigns, non-central government public sector entities, multilateral development banks, securities firms and other assets as at 31 December 2016.

SA, as a member of the G20, has committed itself to 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, Bank and Sovereign).

### CCR4: AIRB – CCR EXPOSURES BY PORTFOLIO AND PD SCALE

PD scale	EAD post-CRM	Average PD	Number of obligors	Average LGD	Average maturity	Risk-weighted assets	Risk-weighted assets density
	Rm	%		%	Years	Rm	%
<b>2016</b>							
<b>Corporate</b>							
0,00 to < 0,15	1 600	0,07	141	36,51	1,94	295	18,44
0,15 to < 0,25	530	0,20	78	22,56	3,64	131	24,72
0,25 to < 0,50	1 347	0,34	160	30,84	3,04	589	43,73
0,50 to < 0,75	323	0,64	108	30,03	2,13	151	46,75
0,75 to < 2,50	2 297	1,11	293	18,04	2,05	859	37,40
2,50 to < 10,00	499	5,55	381	34,98	2,63	599	120,04
10,00 to < 100,0	69	10,82	17	33,48	4,50	118	171,01
100,0 (default)	9	100,00	3	41,10	1,00	51	566,67
	<b>6 674</b>	<b>1,18</b>	<b>1 181</b>	<b>27,45</b>	<b>2,42</b>	<b>2 793</b>	<b>41,85</b>
<b>2015</b>							
0,00 to < 0,15	1 665	0,07	113	37,15	2,58	393	23,60
0,15 to < 0,25	1 009	0,20	94	34,94	2,38	354	35,08
0,25 to < 0,50	521	0,39	107	34,39	2,00	221	42,42
0,50 to < 0,75	930	0,64	85	31,56	1,14	411	44,19
0,75 to < 2,50	945	1,58	268	34,82	2,50	795	84,13
2,50 to < 10,00	400	6,44	278	34,14	2,51	517	129,25
10,00 to < 100,0	22	13,42	8	19,51	3,87	21	95,45
100,0 (default)		100,00	1	54,73	1,00		
	<b>5 492</b>	<b>1,00</b>	<b>954</b>	<b>34,85</b>	<b>2,23</b>	<b>2 712</b>	<b>49,38</b>
<b>2016</b>							
<b>Sovereign<sup>1</sup></b>							
0,00 to < 0,15	1 328	0,10	9	17,95	3,98	236	17,77
0,15 to < 0,25							
0,25 to < 0,50							
0,50 to < 0,75							
0,75 to < 2,50	1 240	0,91	7	19,52	3,17	556	44,84
2,50 to < 10,00	14	3,62	1	49,40	1,00	20	142,86
10,00 to < 100,0							
100,0 (default)							
	<b>2 582</b>	<b>0,51</b>	<b>17</b>	<b>18,88</b>	<b>3,57</b>	<b>812</b>	<b>31,45</b>



PD scale		EAD post-CRM	Average PD	Number of obligors	Average LGD	Average maturity	Risk-weighted assets	Risk-weighted assets density
		Rm	%		%	Years	Rm	%
2015								
	0,00 to < 0,15	564	0,07	12	16,14	3,59	72	12,77
	0,15 to < 0,25	1	0,16	1	12,60	2,96		
	0,25 to < 0,50	128	0,45	1	19,50	1,02	29	22,66
	0,50 to < 0,75	197	0,64	2	19,50	3,30	79	40,10
	0,75 to < 2,50	13	1,80	3	16,29	1,00	5	38,46
	2,50 to < 10,00	< 1	6,09	2	14,90	1,00		
	10,00 to < 100,0							
	100,0 (default)							
		903	0,28	21	17,35	3,13	185	20,49
2016								
Banks								
	0,00 to < 0,15	2 518	0,07	73	27,24	1,67	382	15,17
	0,15 to < 0,25	748	0,17	12	21,39	1,33	156	20,86
	0,25 to < 0,50	381	0,33	12	32,43	3,01	235	61,68
	0,50 to < 0,75	111	0,64	3	42,75	1,76	100	90,09
	0,75 to < 2,50	534	0,92	11	42,73	1,80	553	103,56
	2,50 to < 10,00	2	3,64	4	52,01	1,00	2	100,00
	10,00 to < 100,0	< 1	40,05	2	67,50	1,00	1	
	100,0 (default)							
		4 294	0,24	117	29,03	1,75	1 429	33,28
2015								
	0,00 to < 0,15	8 731	0,05	109	30,47	1,75	1 362	15,60
	0,15 to < 0,25	1	0,16	3	31,54	1,00		
	0,25 to < 0,50	170	0,32	9	42,36	2,38	124	72,94
	0,50 to < 0,75							
	0,75 to < 2,50	155	1,43	9	42,72	1,95	172	110,97
	2,50 to < 10,00	37	3,62	7	43,78	1,00	45	121,62
	10,00 to < 100,0	19	40,91	3	49,56	1,36	52	273,68
	100,0 (default)							
		9 113	0,18	140	30,99	1,76	1 755	19,26
2016								
Group								
	0,00 to < 0,15	5 446	0,08	223	27,70	2,31	913	16,76
	0,15 to < 0,25	1 278	0,18	90	21,88	2,29	287	22,46
	0,25 to < 0,50	1 728	0,34	172	31,19	3,03	824	47,69
	0,50 to < 0,75	434	0,64	111	33,30	2,04	251	57,83
	0,75 to < 2,50	4 071	1,02	311	21,73	2,36	1 968	48,34
	2,50 to < 10,00	515	5,49	386	35,44	2,58	621	120,58
	10,00 to < 100,0	69	10,93	19	33,60	4,49	119	172,46
	100,0 (default)	9	100,00	3	41,10	1,00	51	566,67
Total group		13 550	0,75	1 315	26,32	2,43	5 034	37,15
2015								
	0,00 to < 0,15	10 960	0,69	234	29,53	2,03	1 827	16,67
	0,15 to < 0,25	1 011	0,19	98	34,77	2,94	354	35,01
	0,25 to < 0,50	819	0,41	117	33,47	1,95	374	45,67
	0,50 to < 0,75	1 127	0,64	87	29,26	1,58	490	43,48
	0,75 to < 2,50	1 113	6,87	280	33,47	2,04	972	87,25
	2,50 to < 10,00	437	14,44	287	31,95	2,36	562	128,31
	10,00 to < 100,0	41	26,27	11	33,56	2,70	73	178,05
	100,0 (default)			1				
Total group		15 508	0,48	1 115	31,56	2,01	4 652	29,99

<sup>1</sup> Sovereign entities includes Sovereign, Public Sector Entities 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, that is conducted on both a portfolio and counterparty level. Wrong-way risk is currently mitigated through the following mechanisms:

- The predominant use of cash collateralisation in order 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

Rm	Collateral used in derivative transactions				Collateral used in SFT	
	Fair value collateral received		Fair value of posted collateral		Fair value of collateral received	Fair value of posted collateral
	Segregated	Unsegregated	Segregated	Unsegregated		
<b>2016</b>						
Cash – domestic currency		1 683		6 191	3 200	1 598
Domestic sovereign debt		450			14 774	5 219
Government agency debt					180	263
Corporate bonds					686	
Equity securities					3 020	
Other collateral					40	
<b>Total</b>		<b>2 133</b>		<b>6 191</b>	<b>21 900</b>	<b>7 080</b>
<b>2015</b>						
Cash – domestic currency		7 672		3 981	2 157	567
Domestic sovereign debt					18 504	4 596
Government agency debt					644	529
Corporate bonds					451	
Equity securities					2 904	
Other collateral					115	
<b>Total</b>		<b>7 672</b>		<b>3 981</b>	<b>24 775</b>	<b>5 692</b>

The notional values for single-name credit default swaps are made up of credit default swaps embedded in credit linked notes whereby protection of R3 537m is bought and R80m is sold. The remainder of the notional values for single-name credit default swaps relate to trading positions in respect of third-party transactions through the purchase (R1 287m) and sale (R4 500m) of credit protection.

Index credit default swap exposure relates to trading positions in MarkIt iTraxx Europe through the purchase (R4 180m) and sale (R4 180m) of credit protection.

#### CCR6: CREDIT DERIVATIVES EXPOSURE

Rm	2016		2015	
	Protection bought	Protection sold	Protection bought	Protection sold
<b>2016</b>				
<b>Notionals</b>				
Single-name credit default swaps	4 824	4 580	5 565	4 825
Embedded derivatives	3 537	80	4 344	25
Third-party	1 287	4 500	1 221	4 800
Index credit default swaps	4 180	4 180	9 526	9 526
<b>Total notionals</b>	<b>9 004</b>	<b>8 760</b>	<b>15 091</b>	<b>14 351</b>
<b>Fair values</b>				
Positive fair value (asset)	59	96	197	461
Negative fair value (liability)	(83)	(132)	(461)	(163)

Nedbank Group exposure to qualifying central counterparties (QCCP's) relates to exchange traded derivatives.

**CCR8: EXPOSURES TO CENTRAL COUNTERPARTIES**

Rm	2016		2015	
	EAD post-CRM	RWA	EAD post-CRM	RWA
<b>1 Exposures to QCCPs</b>	<b>10 583</b>	<b>69</b>	<b>8 584</b>	<b>61</b>
Exposures for trades at QCCPs (excluding initial margin and default fund contributions); of				
2 which	<b>3 357</b>	<b>67</b>	<b>2 979</b>	<b>60</b>
3 (i) OTC derivatives				
4 (ii) Exchange-traded derivatives	<b>3 357</b>	<b>67</b>	<b>2 979</b>	<b>60</b>
5 (iii) Securities financing transactions				
6 (iv) Netting sets where cross-product netting has been approved				
7 Segregated initial margin	<b>7 155</b>		<b>5 559</b>	
8 Non-segregated initial margin				
9 Pre-funded default fund contributions	<b>71</b>	<b>2</b>	<b>46</b>	<b>1</b>
10 Unfunded default fund contributions				

Rows 11 to 20 are excluded from CCR8 disclosure as there are no exposures to non-qualifying central counterparties for the year.

In April 2014, the BCBS published a revision to the paper 'The Standardised Approach for measuring CCR exposures', which outlines the formulation of its SA-CCR. The SA-CCR will replace both the CEM and the Standardised Method and Nedbank is well positioned to implement the new requirements and continues to monitor the impact of the new measurement of EAD for CCR.

# Insurance risk

Insurance is based on the principle of pooling homogenous risks that are caused by low probability events. Insurance risk incorporates three principle risk components, namely, underwriting risk where the customer is placed into the incorrect risk pool, pricing risk where the level of risk associated with a pool is mispriced, and non-independence where a single event results in claims from multiple customers – when many customers are affected simultaneously, this is known as a catastrophe. The Nedbank Group insurance risk also includes insurance product design 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 and vehicle-related value-add products for the retail market.

## 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 underwriting 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. Internal and external actuaries at appropriate levels, play an oversight role with respect to underwriting activities including reporting and monitoring procedures in respect of product, valuation, reinsurance, pricing and regulation.

The framework seeks to ensure that risk characteristics are properly understood, incorporated and managed where insurance activities are undertaken.

Risks associated with new or amended products in the insurance business units follow the group's formal product approval policy, which include pricing and risk reviews by the statutory actuary; an approval at cluster executive and group executive level, which are subsequently managed through the Risk Management Framework outlined above.

The board of Nedbank Insurance acknowledge responsibility for risk management. 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 underwriting risk is managed during the underwriting process in the following manner:

- Monitoring of the concentration of exposures and changes in the environment.
- Profile analysis.
- Monitoring of key ratios to ensure that they are in line with expectations and to identify any potential areas of concern or any changes in the claims patterns.
- Regular monitoring of policy movements to identify possible changes to initial risk profiles and pricing.
- Annual review of premiums taking into account both past and expected claims experience.
- Monitoring of the concentration of insurance risk, which includes the assessment of geographical spreads, the impact of catastrophe reinsurance, maximum losses per single events and mitigations that include sufficient reassurance and reviewable pricing and exclusions.
- Monitoring of rigorous assessment procedures (that includes Forensics intervention where required) to ensure that only valid claims are paid.
- Monitoring of the effectiveness of reinsurance programmes by the board and various risk forums and external actuaries.
- Monitoring of key process and key risk indicators (KRI) 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 and financial soundness.
- Monitoring of underlying investment risk by the Nedbank Wealth Investment Committee on a quarterly basis, which covers asset and liability matching and fund and asset management performance. However, policyholder investment mandates are matched on a monthly basis. Exposure limits are agreed and approved by the boards of the company 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, in accordance with worldclass risk management principles.

## Solvency II and SAM

The FSB is introducing 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.

The insurance businesses are on track with their SAM implementation, which has been embedded in the risk management frameworks, strategic initiatives and system enhancements. The businesses are currently engaged in the SAM comprehensive parallel run, during which they are required to report to the FSB on both the current regulatory regime and the SAM regulatory regime. Governance committees, policies and processes have been optimised to cater for the new requirements within the existing business units and oversight.

Implementation of the SAM regime is expected during the second half of 2017.

- 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 decision-making 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's strategic portfolio tilt strategy. Nedbank Insurance consumes only 1,9% (December 2015: 1,6%) of the group's allocated capital requirement.

The high solvency ratios are reflected in the following table:

### SOLVENCY RATIOS

Times	Regulatory minimum	Management target <sup>1</sup>	2016	2015
Long-term insurance (Nedgroup Life)	1,00	> 1,5	11,1	14,4
Long-term insurance (Nedgroup Structured Life)	1,00	> 1,5	1,5	1,8
Non-life insurance (NedIC)	1,00	> 1,5	2,2	2,7

<sup>1</sup> Management target is based on the greater of regulatory and economic capital.

The long-term insurance ratio is well above statutory and management target levels, mainly due to higher economic capital requirements in the business. During the current year the long-term and non-life insurance solvency ratios decreased due to lower retained earnings, mainly as a result of dividend payments in 2016.

# Concentration and off-balance-sheet risks

Nedbank Group has enhanced its holistic groupwide concentration risk measurement, which 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 percentage contribution of 65% of the group's economic capital. A liquidity crisis is a plausible event that could ultimately 'break a bank'. Therefore, liquidity risk and credit risk are considered the two concentration risk focus areas for Nedbank, which also aligns with the lessons learned from the global financial crisis. Other potential areas of concentration risk within Nedbank include equity risk in the banking book – property investments, property risk, liquidity risk (wholesale funding reliance) and IRRBB.

Concentration risk appetite targets are set both in areas where Nedbank Group is materially exposed to concentration risk, as well as areas of under-concentration, to unlock opportunities. The targets are agreed by senior management and approved by the board of directors.

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 on a continuous basis by Group Alco, the GCC and the board's GRMC.

## Credit risk

Within Nedbank Group credit concentration risk is actively managed, measured and ultimately capitalised for in the group's economic capital and ICAAP. Unmanaged risk concentrations are potentially a cause of major risk in banks. Concentration risk is 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 remain relatively low as a percentage of total economic capital at 6,80% (2015: 7,14%).

### TOP 20 NEDBANK GROUP EXPOSURES

Number	Excluding banks and government exposure		
	Internal NGR <sup>1</sup> (PD) rating	EAD (Rm )	% of total group credit economic capital
1	NGR07	9 607	0,48
2	NGR08	9 372	0,29
3	NGR08	6 298	0,53
4	NGR11	5 577	0,36
5	NGR05	5 558	0,10
6	NGR09	5 796	0,36
7	NGR09	5 237	0,46
8	NGR07	4 836	0,26
9	NGR06	4 541	0,15
10	NGR11	4 240	0,38
11	NGR07	4 181	0,32
12	NGR10	4 055	0,39
13	NGR10	3 717	0,22
14	NGR09	3 635	0,08
15	NGR12	3 656	0,78
16	NGR14	3 659	0,68
17	NGR11	3 699	0,45
18	NGR07	3 440	0,11
19	NGR08	3 184	0,21
20	NGR10	2 935	0,19
<b>Total of top 20 exposures</b>	<b>NGR10</b>	<b>97 223</b>	<b>6,80</b>
<b>Total group<sup>2</sup></b>		<b>981 104</b>	<b>100,00</b>

<sup>1</sup> Nedbank Group Rating.

<sup>2</sup> Total group EAD includes all Nedbank Group subsidiaries. Although the subsidiaries are subject to TSA, conservative benchmarks are applied for the purpose of estimating internal credit economic capital.

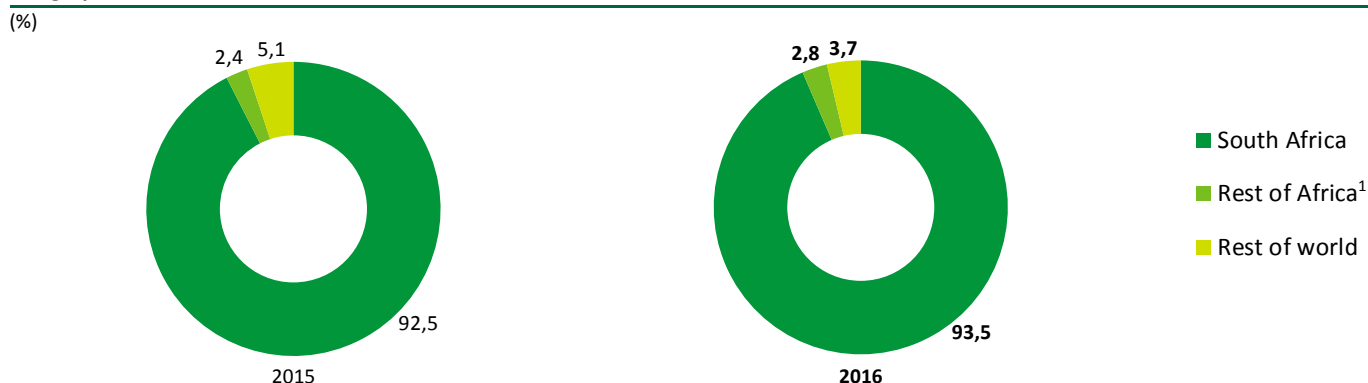
Direct exposure to the SA government relates mainly to statutory liquid-asset requirements, as well as Basel III liquidity buffers, and constitutes 10,8% (2015: 9,1%) of total balance sheet credit exposure.

- 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.

## Geographic concentration risk

Geographic concentration risk in SA has increased to 93,5% (2015: 92,5%) with exposure to the rest of Africa increasing in line Nedbank Group's with the Rest of Africa strategy. 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.

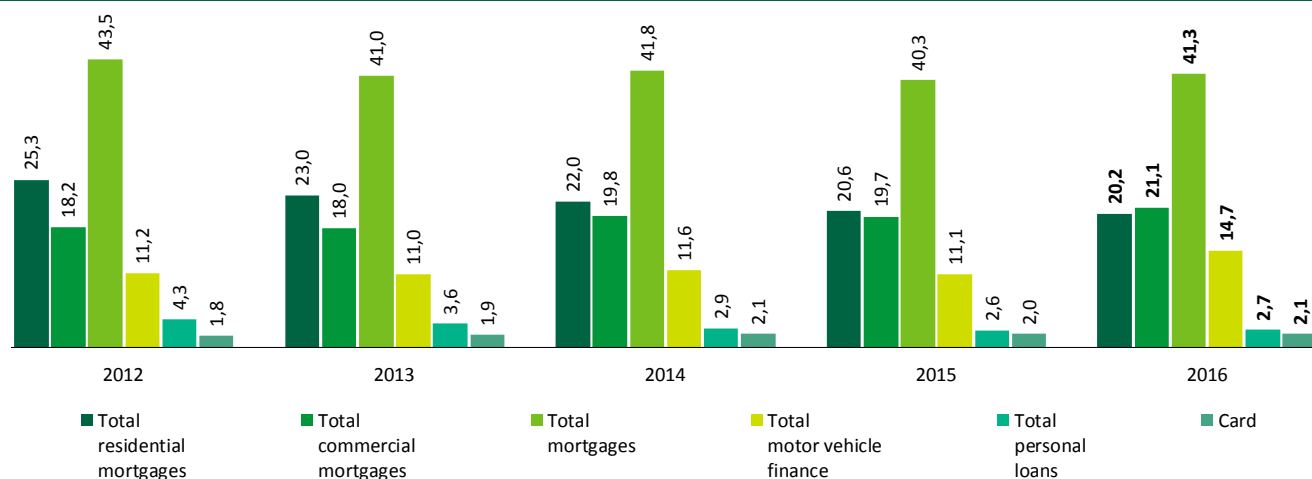
### Geographic concentration risk



<sup>1</sup> The Rest of Africa geographical segmental consists of the Southern African Development Community banking subsidiaries and the investments in ETI and Banco Único. 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

### % 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 strategic portfolio tilt 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 2012 from 18,2% to 21,1% (2015: 19,7%) of gross loans and advances, and consequently Nedbank Group has maintained its leading local market share position, currently at 40,8%. This potentially high concentration is mitigated by good-quality assets, high levels of collateral, a low average LTV ratio (approximately 50%), 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 14,4% of market share, the contribution of these advances as a percentage of total gross loans and advances is still substantial at 20,2% in 2016 (2015: 20,6%). 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 new on-line 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 residential mortgages, Nedbank's total mortgage market share is in line with that of its peers at 21,9%.

Total retail motor vehicle finance exposure within Nedbank Group has increased to 14,7% (2015: 11,1%) of gross loans and advances. Current market share is approximately 27,7%, which is second of 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 7,7% due to its leading position in the secondhand and affordable-vehicle markets.

Personal loans advances have decreased from its peak of 4,3% in 2012 and are now at 2,7% of gross loans and advances. Personal loans gross loans and advances increased by 7,2% from 2015, for the first time since the implementation of strategic portfolio tilt strategies in 2012. As a percentage of total gross loans and advances, Card loans and advances have increased moderately from 1,8% in 2012 to 2,1% in 2016 (2015: 2,0%).

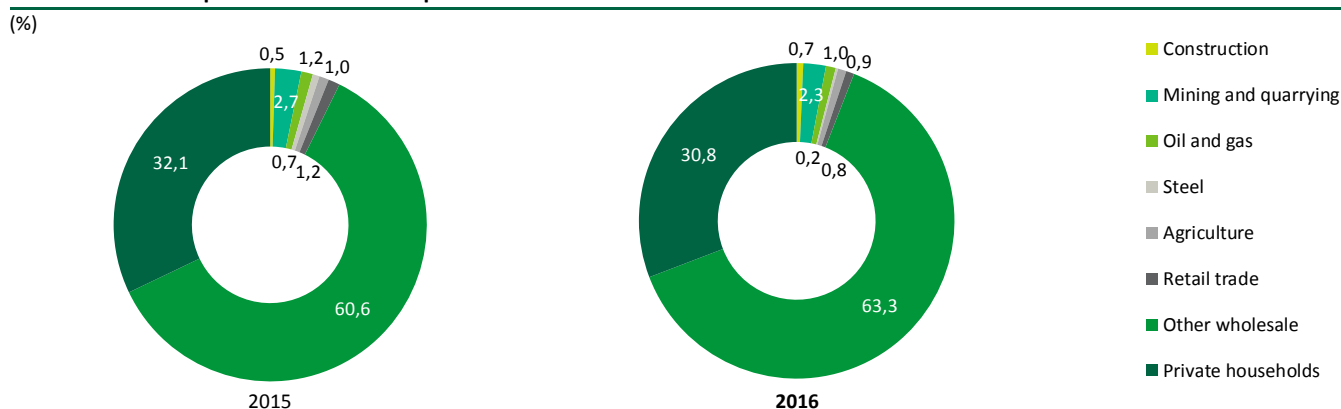
## Industry concentration risk

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 5,1% of the group's on-balance-sheet exposure, down from 6,0% in 2015.

- The increase in oil and commodity prices has resulted in positive rating migrations across the book. The portfolio reflects low concentration and downside risk against the tough economic environment.

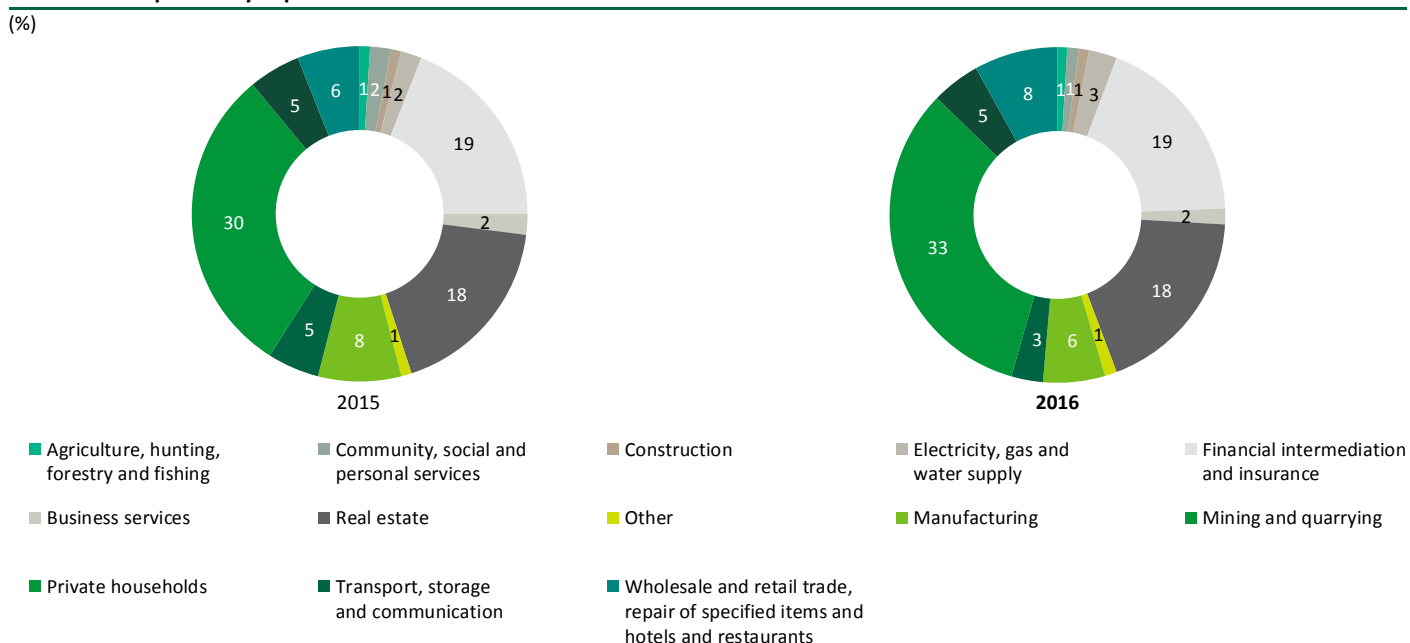
All impacted portfolios are closely monitored by Nedbank, and the quality thereof is assessed on an ongoing basis to ensure that the levels of credit impairments on portfolios are adequate. Comprehensive deep dives and sensitivity analyses have been performed on the portfolio to obtain deeper insight of the changes experienced in the client base in the difficult economic environment, as well as quantify the impact of further potential economic stress.

### % of Nedbank Group on-balance-sheet exposure<sup>1</sup>



<sup>1</sup> Nedbank Group on-balance-sheet exposure R850bn (2015: R762bn).

### Nedbank Group industry exposure<sup>1</sup>



<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 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.



## Equity risk in the banking book: property investments

The equity risk portfolio is concentrated in real estate at 24%, but constitutes only 0,33% of total assets as at 31 December 2016. In terms of sector split, 33% of the real estate portfolio is in retail, 18% in commercial, 15% in residential properties and 21% is mixed-use developments. In terms of geographic classification, 39% 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 77% in Gauteng. The concentration risk in the head office (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 39% of total funding from wholesale deposits that 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 which play 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 the three-month repricing 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 'free funds' 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 94).

### Off-balance-sheet risks

With regards to off-balance-sheet risks, there are only three 'plain vanilla' securitisation transactions (see page 88), 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 35) and Nedbank Group is well below both the Basel and SARB limit 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 defined as the risk of loss resulting from inadequate or failed internal processes, people and systems or from external events. This definition includes legal risk, but excludes strategic and reputational risk. Legal risk includes, but is not limited to, exposure to fines, penalties or punitive damages resulting from supervisory actions, as well as private settlements.

Operational risk is inherent in all products, activities, processes and systems and is generated in all areas of the business. Nedbank's Operational Risk Management (ORM) and control systems are designed to help ensure that the risks associated with the group's activities, including but not limited to those arising from process error, failed execution, fraud, cyber-attacks, breaches of information security, system failures, and physical security failures are appropriately managed. Managing operational risk is a core element of our activities and is aimed at protecting and building a sustainable business.

## Operational risk strategic objectives

The overall operational risk strategic objectives of the group include the following:

- Actively working with clusters to ensure we offer products and services that help our customers meet their financial needs and which are in their best interests.
- Supporting growing clusters in order to develop the appropriate infrastructure to manage the risk of Nedbank's growth.
- Expressing an independent opinion on the strategy and performance of all risk-taking activities.
- Demonstration of the use test, focusing on business benefits, maintaining and using internal operational risk models.
- Contributing significantly to capital analysis, review and strategic planning.

## Key activities for 2016

Key activities for 2016 were:

- Business process mapping for key business processes was successfully completed, which contributed towards improved risk and control identification and assessment.
- The development of a second-generation operational risk model with enhanced capabilities (eg to estimate economic capital and to evaluate our internal capital adequacy), including a review of methodology and technology, continued to receive focus.
- Continued enhancement of the quality and integrity of operational risk data elements [internal loss data (ILD), external loss data (ELD), scenario analysis and business environment and internal control factors (BEICFs)], through framework effectiveness testing.
- Various projects were initiated to automate and enable various ORM and measurement processes, to reduce manual processes and improve controls.
- The cyber resilience programme continued to receive focus. A number of work-streams to enhance the management of cyber resilience risk were successfully completed.
- Sound progress was made in significantly elevating and maturing financial crime risk management across the group.
- Risk data aggregation and risk reporting gaps continued to be remediated as part of the group-wide Enterprise Data Programme (EDP). Nedbank adopted a strategic approach by implementing a sustainable solution that will address the management of enterprise data.

## Top and emerging risk themes

The operational risk profile within Nedbank remains stable. Targeted efforts continue in managing Nedbank's top operational risks and enhancing the control environment. The top and emerging operational risk themes for 2016 were execution-related risks, information/cybersecurity, the intense regulatory environment, IT risk, conduct risk, outsourcing/third-party risk, financial crime and people risk.

### TOP AND EMERGING OPERATIONAL RISK THEMES

<b>Execution risk</b>	<ul style="list-style-type: none"> <li>■ The risk of loss due to failures in transaction processing or process management.</li> </ul>
<b>Information security/cyber resilience</b>	<ul style="list-style-type: none"> <li>■ The risk of loss or theft of information, data, money or denial of service including the growing threat of cyber-attacks.</li> </ul>
<b>Intense regulatory environment</b>	<ul style="list-style-type: none"> <li>■ The risk arising from regulatory pressure due to volume, content, interpretation, and form in which regulations have been implemented.</li> </ul>
<b>IT risk</b>	<ul style="list-style-type: none"> <li>■ The risk of loss due to consolidation, simplification and replacement of legacy systems.</li> <li>■ Risk relating to banks' IT infrastructure.</li> <li>■ The risk relating to information and communication technology.</li> </ul>
<b>Conduct risk</b>	<ul style="list-style-type: none"> <li>■ The group's pattern of behaviour in executing its pricing and promotion strategy.</li> <li>■ Relationship between the bank and the public, market, laws, best practices, client expectations, regulators and ethical standards.</li> </ul>
<b>Outsourcing/third party risk</b>	<ul style="list-style-type: none"> <li>■ 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.</li> </ul>
<b>Financial crime</b>	<ul style="list-style-type: none"> <li>■ This risk includes a combination of subrisk categories, ie commercial crime, violent crime and regulatory contraventions.</li> </ul>
<b>People risk</b>	<ul style="list-style-type: none"> <li>■ The risk associated with inadequacies in human capital and the management of human resources, policies and processes resulting in the inability to attract, manage, motivate, develop and/or retain competent resources with concomitant negative impact on the achievement of strategic group objectives.</li> </ul>

These top risks and net operational risk losses were contained within the approved risk appetite limits.

## Outlook for 2017

The inherent operational risk profile will remain under pressure from a number of disruptive forces influencing the banking industry including but not limited to: fluctuations in banks' return profile and profit levers; political and regulatory changes; economic and market developments; and the impact of the pace of innovation on social behaviours. Despite this VUCA environment, Nedbank will continue to build on its capacity to be forward-looking and predictive in managing operational risk and demonstrate value-add from continuing investment in ORM.

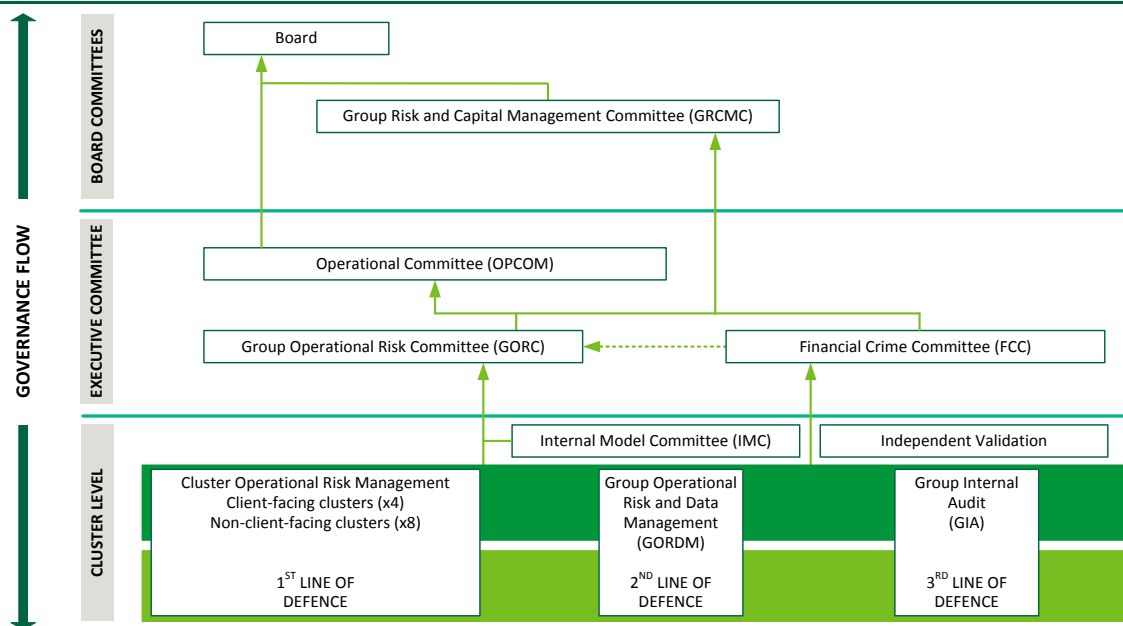
## Nedbank Group's approach to managing operational risk

Nedbank Group continued to quantify operational risk using a model which meets the regulatory capital standard under the AMA and which is approved by the SARB. The group continues to invest in the improvement of its operational risk measurement and management approaches, across all lines of defence.

## Organisational risk structure and governance

The governance structure for operational risk, supported by the three lines of defence model, is an integral part of the ORMF.

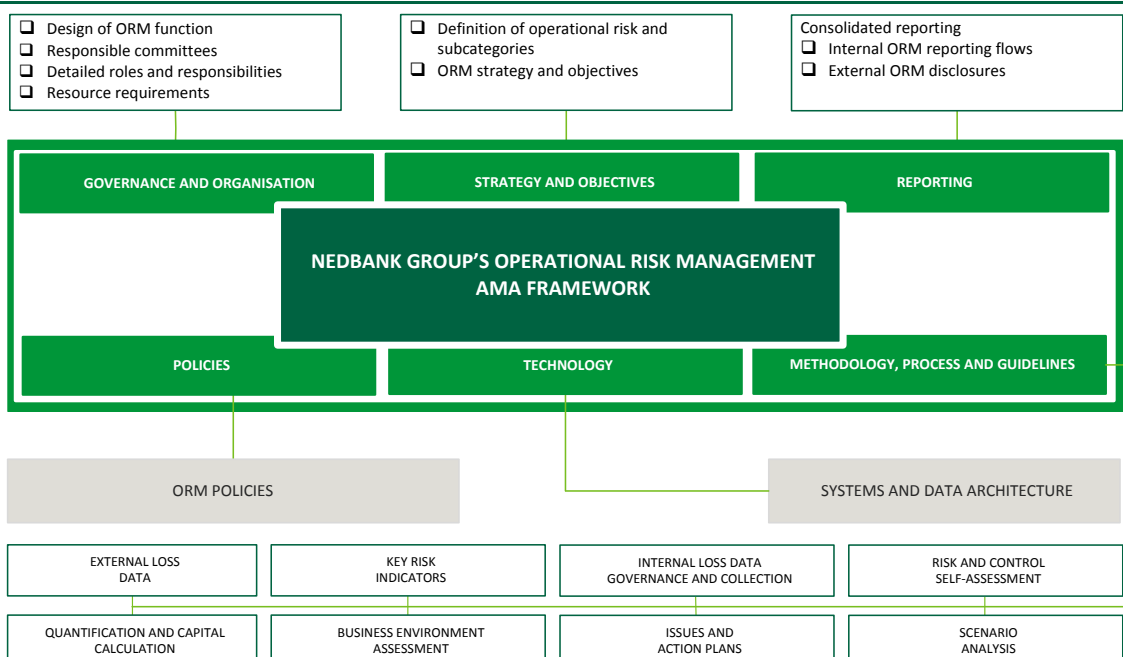
### Operational risk organisational structure and governance flow



## Operational Risk Management Framework

Managing operational risk is a key element of our business activities, implemented through our ORMF as illustrated below.

### Nedbank Group's Operational Risk Management Framework



The group's key objective is to provide a framework that supports the identification, assessment, management, monitoring and reporting of material operational risks. Reporting to the CRO, the Group Operational Risk and Data Management (GORDM) and specialist functions in Group Risk will continue to manage, implement and enhance the ORMF and its sub-policies and frameworks.

The ORMF is reviewed and updated annually in order to align policies and methodologies with current local and international best practice. Amendments to the ORMF are approved by Group Operating Risk Committee (GORC) and are ratified by the board's GRMC. 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 includes the tracking of KRIs; Risk and Control Self-Assessments (RCSA); monitoring BEICFs; the ILD collection processes and governance; considering ELD; scenario analysis and capital calculation, which are designed to function in an integrated and 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

Operational risk tool		Description
Qualitative	Key Risk Indicators (KRIs)	KRIs provide insight on trends in exposures to key operational risks, and are used extensively by business to inform their operational risk profiles. They are often paired with escalation triggers that warn when indicators are approaching or exceeding threshold; and prompt mitigation plans.
	Risk and Control Self-Assessments (RCSAs)	The main objective of the RCSA process is to enable business and risk managers to proactively identify, assess and monitor key risks within defined risk tolerance and appetite levels. Key risks are risks that may result in significant financial loss, could damage business or could negatively impede the attainment of business strategic objectives. The RCSA process is well entrenched in Nedbank and integral to the business management activities.
	Business Environment and Internal Control Factors (BEICFs)	The group takes into account BEICFs as part of the RCSA process. Consideration of BEICFs enables the group to take into account 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.
Quantitative	Internal Loss Data (ILD)	The ILD collection and tracking process is backward-looking and enables the monitoring of trends and the analysis of the root causes of loss events. Operational risk losses are reported in Nedbank's ILD collection system.  Boundary events are those losses that manifest themselves 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 regulations relating to banks issued in terms of the Banks Act (Act No. 94 of 1990) and Basel III requirements, holding of capital related to these events remains in credit risk. These events are included as part of the ORMF to assist in the monitoring, reporting and management of the control weaknesses and causal factors within the credit process.  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 operational risk capital.
	External Loss Data (ELD)	ELD is used to incorporate infrequent, yet relevant and potentially severe operational risk exposures in the measurement model. The group currently incorporates the effects of ELD in the operational risk capital calculation model indirectly, in conjunction with the scenario analysis process. ELD is also used to benchmark the internal diversification matrix.  Nedbank is a member of and actively participates in working groups of the Operational Riskdata eXchange Association (ORX). ORX accumulates data submitted by each of the member banks quarterly. In addition, the group subscribes to the SAS Global Database, which contains data sourced from the media and other sources within the public domain.
	Scenario Analysis	Operational risk scenario analysis is defined in the ORMF as one of the data sources for operational risk modelling and measurement. It serves as the primary input for operational risk loss exposure estimation. Scenario analysis is conducted in a disciplined and structured way, using expert judgement to estimate the operational risk exposure of the group. Scenario analysis focuses mainly on operational risks that may impact the solvency of the bank. Nedbank shares and uses a set of anonymous operational risk scenarios, made available through ORX, for identifying trends and benchmarking with international peers. During 2017, scenarios were successfully updated and action items developed to improve the management of operational risk.

## 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 only a small portion of the group (10%), including operations in the Rest of Africa, 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 on 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 operational risk capital.

The model generates a regulatory capital requirement, which is determined at a 99,9% confidence level. The final capital number is then calculated by including updates for TSA entities and meeting SARB 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 current operational risk model is undergoing a review and permission has been requested from the regulator, to migrate to the enhanced AMA model. This enhanced model is part of the bank's efforts to implement the latest techniques and technologies for operational risk modelling, including the estimation of economic capital and the evaluation of our internal capital adequacy.

## 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, risk mitigation actions and projects are reported to and monitored by the risk governance structures of the group.

## Insurance obtained to mitigate the banks' exposure to operational risk

Nedbank Group insurance programs are structured in order 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 in total, but the group retains a significant interest in the financial impact of losses within the group captive insurance companies. This financial interest keeps Nedbank focused on risk mitigation/loss control to protect the reserves held in our captives. Nedbank structures the programs in partnership with underwriters who bear the catastrophic, unpredictable type events and we manage the predictable higher frequency, lower severity losses through the Captives.

The Captive retention structure, has been instrumental in controlling pay away premium, and has assisted the group in adverse insurance market conditions where insurance rates hardened. The last eight years reflect effective control in premium spend against insurance VaR. In addition to controlling spend, during the latest 2016 renewal we have extended the portfolio coverage to include cyber insurance for the group.

## 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.

### Cyber resilience

Traditionally, information security risk arises from an inability to ensure the confidentiality, integrity and availability of business and client information for which the group is accountable. More recently the international emphasis has moved away from 'information security' which is mostly standards-driven, to the concept of 'cyber resilience', which is more intelligence-driven and which requires effective detection, response and remediation of cyber threats.

Nedbank developed a Cyber Resilience Risk Management Framework to enhance cyber resilience in the group. It provides a framework for the coordinated management of intelligence, technology, and business operations to effectively manage Nedbank's business information assets to prevent unwanted consequences, as well as the protection of critical assets and reputation from external and internal threats, through technical and non-technical measures.

### Business continuity management

BCM in Nedbank ensures resilient group business activities in emergencies and disasters. The group conducts regular reviews and testing of business continuity and disaster RPs. A centralised BCM function provides overall guidance and direction, monitors compliance with regulatory and best-practice requirements and facilitates regular review of BCM practices. Independent reporting and assurance of BCP activities is 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, wasted legal costs or 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 and/or significant new or amended laws; inappropriate selection and use of external lawyers; legal documentation used in transactions which is not enforceable as intended, or maybe enforced against the group in an adverse way; litigation involving the group as either claimant or defendant is not managed adequately; and the group's intellectual property is not protected and the legal risk arising from the breach of competition laws or reputational risk.

Nedbank has a decentralised legal risk model with central coordination. Group Legal performs all central functions legal work and deals with all intellectual property and litigation against the bank.

## Financial crime

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, bribery, misconduct by staff, clients, suppliers, business partners, third parties, and other stakeholders. The organisation therefore takes a proactive and vigorous approach to managing and mitigating this risk in all its forms and has a zero tolerance stance against fraud, corruption and any form of dishonesty committed by its employees.

Financial Crime Theme	Mitigation
<b>Fraud</b>	<ul style="list-style-type: none"> <li>■ Fraud monitoring and prevention measures which include internal and external whistleblowing channels, numerous anticorruption initiatives and ongoing investment into cybercrime-combating capabilities.</li> <li>■ Targeted awareness training provided to staff members and clients.</li> <li>■ Implementation of standards to prevent, detect, deter and respond to fraud incidents.</li> <li>■ Various reporting channels are available to employees, vendors, service providers and clients. Security and fraud-related incidents can be reported at any time through an internal reporting line that is supported by an external, independently managed, whistleblowing hotline. This hotline is available to staff and clients in SA as well as our Rest of Africa subsidiaries in Namibia, Swaziland, Lesotho, Malawi and Zimbabwe.</li> </ul>
<b>Cybercrime</b>	<ul style="list-style-type: none"> <li>■ Nedbank has introduced various measures to counter cybercrime, including comprehensive fraud detection systems and innovative products such as Approve-IT and the IBM Trusteer software, that is offered free of charge to our clients. Nedbank continues to work closely and share threat information with industry bodies, peers and law enforcement agencies.</li> </ul>
<b>Staff Integrity</b>	<ul style="list-style-type: none"> <li>■ People risk is managed and minimised through a number of specific controls that are incorporated into recruitment and selection processes for all permanent staff, contractors, temporary employees and consultants.</li> <li>■ As part of compliance with Financial Advisory and Intermediary Services (FAIS) Act requirements, staff integrity management verification is done on appointment of relevant staff and repeated every 24 months.</li> </ul>
<b>Online Fraud</b>	<ul style="list-style-type: none"> <li>■ Implemented the Approve-it™ account activity notification service and the secure Nedbank App Suite™ which has been in place since 2012. In addition, the organisation maintains an online banking fraud detection capability that is available 365 days a year.</li> <li>■ Nedbank continues to participate in industry initiatives with other financial institutions and law enforcement agencies to ensure that the perpetrators of online criminal activities are identified, caught and brought to book.</li> </ul>
<b>Corruption</b>	<ul style="list-style-type: none"> <li>■ Staff, managers and the group exco signed an anti-corruption pledge, committing themselves to taking a stand against corruption and to upholding ethical and transparent business practices.</li> <li>■ In addition, Nedbank has an ongoing training and awareness programme which includes focus on the requirements of the UK Bribery Act as well as the risk of corruption in general.</li> <li>■ Annual corruption risk assessments conducted in terms of the UK Bribery Act 2010 are integrated into the RCSA process. An attestation regarding the assessment of this risk is also been included in the letter of representation, which is signed on a biannual basis.</li> <li>■ All new and existing vendors are also required to complete a corruption risk assessment questionnaire, either when they are on boarded or when their existing contract is renewed. In addition, ad hoc corruption risk assessments are conducted in high-risk areas.</li> <li>■ In terms of third party risk management, there is a process in place for on-going 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. Bribery and corruption assessments have been introduced as part of the third-party due-diligence processes in high-risk areas.</li> </ul>

## 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 subordinate measures applicable to these. 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 light of the increasing complexity of laws and regulations under which it operates.

### SIGNIFICANT DEVELOPMENTS

#### Financial Sector Regulatory Bill

A significant development is the Financial Sector Regulatory Bill (FSRB), which will result in extensive changes to the current regulatory system and the manner in which the regulations are applied. It fundamentally changes the legal framework in which the financial services industry has operated until now. The main change brought about by the FSRB will be to create the following two distinct regulators:

- A prudential regulator (Prudential Authority).
- A market conduct regulator (Financial Market Conduct Authority).

This system of dual regulation is known as the Twin Peaks model. Twin Peaks will be implemented in two phases, namely:

- Phase one will address who regulates:
  - The Prudential Authority (within the SARB) will regulate (oversee) the safety and soundness of financial institutions that provide financial products.
  - The Financial Market Conduct Authority (within the FSB) will supervise the conduct of business of all financial institutions and the integrity of the financial markets.
- Phase two will address how and what they regulate:
  - The implementation process focused on creating new laws to underpin Twin Peaks.
  - The repeal of current laws and introduction of new all-encompassing financial sector legislation – the Conduct of Financial Institutions Act.

- Nedbank is on track with its preparation for Twin Peaks.

#### Increased focus on consumer protection

- Draft Market Conduct Policy Framework sets out proposals to support improved market conduct by:
  - better empowering financial customers;
  - improving the Ombuds system in order for customers to easily and effectively lodge disputes against financial institutions; and
  - refining financial education initiatives.
- TCF is one of the key programmes driven by the FSB in operationalising the Market Conduct mandate under the Twins Peaks Model. TCF is a market conduct mandate which will relate to the right culture, targeting and marketing of products; the provision of appropriate advice, information and communication; delivery of products and services together with the appropriate post sale treatment.
- The purpose of the (RDR) is to align the distribution of retail financial products sold to customers, to TCF outcomes. RDR consists of 55 specific regulatory proposals to achieve this purpose, to be implemented in three phases, beginning in 2017.

We consider the fair treatment of clients at all stages of their relationship with Nedbank of critical importance. As such, we have fully embraced and adopted the TCF regulations and continue working towards ensuring that our clients benefit from the consistent delivery of all six TCF outcomes. These TCF outcomes connect very closely to our existing client-centric ethos and our code of conduct. As such, treating our clients fairly is already an integral part of Nedbank's culture and the way we design products, market, promote, communicate and service our clients. In 2017, we will continue operationalising TCF and conduct risk, to ensure that industry guidelines and best practices are embedded within our business.

### ANTI-MONEY-LAUNDERING, COMBATING THE FINANCING OF TERRORISM AND SANCTIONS RISK MANAGEMENT

In line with international and local trends, Nedbank has seen increased regulatory scrutiny and inspections in recent years, which have assisted in highlighting areas of our business where it can strengthen administrative regulatory controls.

Regulatory non-compliance relating to AML and CFT and sanctions continues to receive significant focus with a view to addressing the weaknesses previously identified. An AML, CFT and sanctions remediation programme has been established to address the weaknesses identified, enhance the group's programme to be more strategic and to effectively manage any AML, CFT and sanctions risks.

The need to keep increasing the group's oversight, enhancing controls and procedures in respect of all aspects of regulatory compliance is a key focus in Nedbank. This is especially true with regard to combating money laundering, the financing of terrorist and related activities and sanctions compliance. Nedbank has ensured that clearly defined policies, processes, practices, procedures and plans have been updated and are in place to inform all statutory duties and meet regulatory obligations or, in the absence of these, agreed standards.

Nedbank will not have its brand associated with any form of money laundering, terrorist financing or breach of sanctions. To ensure this, the group monitors all business relationships, applications for business relationships and transactions with the aim of identifying the involvement of any individuals, entities, countries, activities or goods that are, or have been, targeted in the financial sanctions legislation.



Nedbank also maintains close and transparent working relationships with the Financial Intelligence Centre and the SARB's Bank Supervision Department (BSD). Nedbank attends quarterly meetings with the BSD to ensure compliance with the regulatory requirements and obtain clarification where necessary. Various cash threshold activity and suspicious transaction reports have also been submitted to the FIC, as required.

Training in AML, CFT and sanctions remains a high priority for the group. AML and CFT training is conducted on an ongoing basis to create awareness, while suspicious transaction training and sanctions compliance training are once-off training interventions completed by all staff members. Selected employees are identified on an ongoing basis to complete the prevention of trade based money laundering, politically exposed persons, cash threshold and client risk profiles and client identification and verification training. The Board is provided training on an annual basis.

Nedbank continues to focus on the implementation of innovative initiatives that combat money laundering, terrorism financing, and promote sanctions compliance.

#### **IFRS 9**

The new IFRS 9 accounting standard will replace the current IAS 39 rules as of 1 January 2018. This will affect banks' classification and measurement of financial assets and liabilities, hedge accounting as well as the quantification of loss allowances for financial assets. From an external disclosure perspective, the 2018 quarter 1 Pillar 3 disclosure will be based on IFRS 9 with more detailed results to be reported as part of the 2018 interim financial results. The project is currently on track for a parallel run in 2017.

In order to meet the prescribed implementation timelines and to ensure a high quality implementation, Nedbank initiated a comprehensive IFRS 9 and Credit 2020 programme which is jointly sponsored by the group's CRO and CFO.

Due to the fundamental shift from IAS 39's backward looking 'incurred loss' to IFRS 9's forward looking 'expected loss model', most of the work is related to the development of new models and the implementation of these. More information on the approach to implementing IFRS 9 and the impact thereof on impairments is provided in the Credit Risk section.

#### **BASEL III**

In responding to Basel III, management continues to deliver, position and prepare Nedbank Group optimally for these regulatory changes. Risk principles have been incorporated in the group's strategic portfolio tilt objectives, facilitating the strategic direction in respect of balance sheet portfolio growth, the consumption of capital, the use of long-dated liquidity and determining the size of the levels of HQLA.

Basel III is being phased in over several years, from 2013 until 2019, and as such there are several major Basel III items that are still work in progress. Nedbank will leverage the IFRS 9 and Basel III implementations to elevate that risk measurement and management to an even higher level than today, and remain focused on changes to the National Credit Act and any strategic implications.

#### **PROTECTION OF PERSONAL INFORMATION ACT**

The Protection of Personal Information (POPI) Act was signed into law on 26 November 2013. The implementation of the conditions of the POPI Act will allow for increased confidence in how financial services and corporate SA uses personal information in their possession and it will also contribute to increasing international investor confidence. The effective date of compliance has not yet been published. However, once published Nedbank will have one year to demonstrate compliance.

The POPI Act allows banks to use the conditions of privacy to augment their continued obligation towards confidentiality. Nedbank's privacy programme has significance at every stage of the information lifecycle and has required targeted change management in terms of the way in which we collect, use, store and ultimately dispose of personal information.

Nedbank is aligned with international developments and will strive to align with the prescribed best practices.

#### **FOREIGN ACCOUNT TAX COMPLIANCE ACT**

The Foreign Account Tax Compliance Act (FATCA) is a law introduced by the US, but aimed at foreign financial institutions and other financial intermediaries. The focus of the regulation is the prevention of tax evasion by US persons and entities through the use of offshore accounts. FATCA was implemented worldwide on 1 July 2014 and requires non-US financial institutions to identify US persons and entities holding accounts or assets with them and report these to the US Internal Revenue Services.

Should a foreign financial institution not enter into an agreement with the Internal Revenue Services, all relevant US-sourced payments, such as dividends and interest paid by US corporations, will be subject to a 30% withholding tax. The affiliates of these institutions and their other foreign entities (the expanded affiliate group) will also be subject to this withholding tax.

The South African Revenue Service (SARS) successfully negotiated an intergovernmental agreement with the US that requires SA financial institutions to report all financial accounts held by US persons to SARS. SARS will in turn report the information to the Internal Revenue Services.

Nedbank and its subsidiaries must comply with the provisions of FATCA to the extent that the laws within the jurisdictions of operations allow.



## **RISK DATA AGGREGATION AND RISK REPORTING**

Nedbank continued to deliver on actions towards compliance with the RDARR or BCBS's 239 principles. Nedbank prepared a gap analysis, roadmap and costing in order to meet the requirements of BCBS's 239 principles. To this end, Nedbank opted for a strategic approach by not just focussing on compliance but 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 – focuses on compliance with BCBS's 239 principles.
- IT infrastructure – selection and implementation of appropriate hardware and software.
- Data Management Organisation – establishment of the Data Management Organisation and its related governance and base data management capabilities.

## **OCCUPATIONAL HEALTH AND SAFETY RISK MANAGEMENT**

The Occupational Health and Safety Act (OHSA) and its associated regulations, places emphasis on all employers and employees to ensure the health and safety of all persons associated with its business. The Nedbank Group Occupational Health and Safety (OHS) department proactively drives the OHS programme to ensure that compliance requirements of the act and regulations, together with international best practice are strictly adhered to at all times. This is achieved by setting standards of health and safety throughout Nedbank Group, appointing the required OHS appointees throughout the group; ensuring that health and safety policies and procedures are regularly reviewed to align with current regulations and that management and staff are constantly aware of, and adhere to these requirements.

This further includes incident management, reporting and investigation of work related incidents aligned with the Compensation of Occupational Injuries and Diseases (COID) Act requirements, monitoring of and advising the group of communicable diseases trends, and effective emergency procedures which must and are regularly practised by all Nedbank sites.

# Business risk

Business risk is not specified for Basel III Pillar 1 regulatory capital. It is however measured in Nedbank Group's economic capital model, in line with current best practice, using an earnings volatility methodology.

Business risk is caused by uncertainty in profits due to changes in the competitive environment 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, readily observable and 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.

Business risk is also associated with losses due to external factors such as the market environment or government regulations. The fluctuations in earnings captured here, are those not attributable to the influence of other risk types. Business risk thus closes the circle and, together with the other risks defined in Nedbank Group's risk taxonomy, provides for complete coverage of the quantifiable economic risks Nedbank Group faces.

The current business risk approach is divided into two parts; a top-down calculation of the group's capital requirement based on external and internal revenue information and a bottom-up scenario based allocation approach to businesses across the group based on business unit-specific scenarios.

## 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.

This definition is more precise and goes further 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 instead replace management responsible for them.

## Quantification of business risk capital

The business risk approach at Nedbank is divided into two parts; a top-down calculation of the group's capital requirement and a bottom-up scenario based allocation approach to businesses across the group.

- Top-down 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 so as 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 earnings declines such as cost cutting.
- Bottom-up 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.

### Top-down calculation

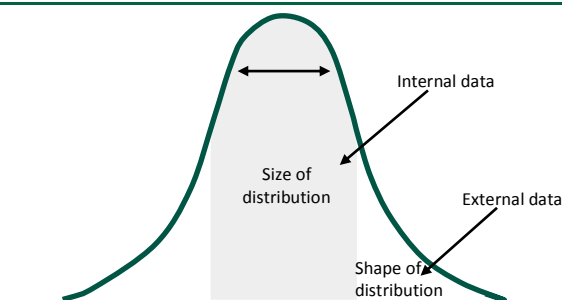


The purpose of the top-down calculation is to size, at a group level, the business risk exposure that Nedbank faces as a consolidated entity. This is done by evaluating to what extent the group's GOI (adjusted for non-business risk factors) can vary compared to expectations in an extreme event.

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 top-down 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.

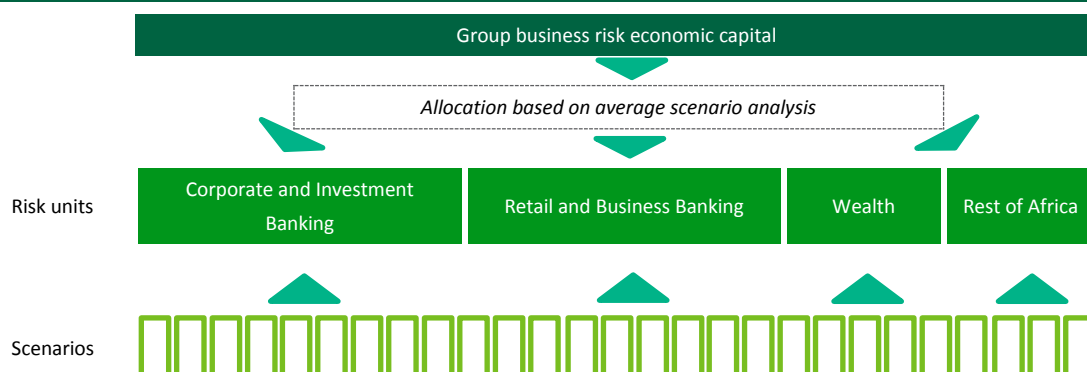
#### A combination of internal and external data is used in the calculations



The most important methodological aspects were derived in four different stages, as discussed below:

- 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 in order to base the shape of distribution on significantly more data points.
  - Peers were 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 is determined, it needs to be parametrised 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.

#### Bottom-up allocation



A bottom-up 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 top-down 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

In order to ensure comparability between various scenarios per business unit as well as across business units, the set of principles contained in the table below were used in deriving the respective business unit scenarios:

Principle	Description
1 Relevance to Nedbank	<ul style="list-style-type: none"> <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	<ul style="list-style-type: none"> <li>■ Scenarios should have the same probability of occurring.</li> </ul>
3 Clarity of transmission into profit and loss impact	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>■ Scenarios should not overlap where possible.</li> <li>■ Scenarios should cover a range of possible events.</li> </ul>

# Accounting, financial and taxation risks

Key risks related to accounting, finance and taxation are actively managed through the ERMF which places emphasis on accountability, responsibility, independence, reporting, communication and transparency, both internally and with all Nedbank's key external stakeholders. This ensures that the group maintains a satisfactory system of control to ensure that the group can comply with all the relevant accounting practices, other statutory disclosure obligations and is able to produce regular, reliable, timely and meaningful financial, statutory, regulatory and management reports and related information.

- Accounting risk, which is actively managed and monitored via the three lines of defence in the ERMF framework, is the risk that the accounting policies and related accounting opinions regarding the recognition, measurement and presentation of assets, liabilities, equity, income, expenses and disclosures are not in accordance with the applicable financial reporting framework ie IFRS and Companies Act.
- The financial statements and related disclosures and other statutory and regulatory financial information are not in accordance with the requirements of IFRS and/or other relevant statutory requirements.
- The financial accounting system and processes do not account and/or record financial transactions in a manner to ensure the occurrence, completeness, accuracy, and classification of the transactions.
- The financial accounting system and processes do not account and/or record financial balances in a manner to ensure the existence, completeness, rights and obligations, valuation and classification of the balances.

Inappropriate accounting policies, accounting opinions, financial statements and disclosures and financial accounting systems and processes could lead to suboptimal or incorrect business decisions by Nedbank and/or incorrect conclusions and reviews by external stakeholders (ie regulators, investors, shareholders, staff, government, etc).

Financial risk was included as a key component of this risk category during the ERMF refresh in 2015 and is defined as the risk that:

- financial targets and key performance indicators are not met and/or;
- inaccurate financial information causes suboptimal investment and operational decisions to be made and/or;
- stakeholders (including regulators) are not adequately informed of significant variances in financial performance to inform key oversight and review decisions bodies are not adequately informed of significant variances in financial performance.

Regular reports are prepared by management regarding the financial performance of the group, the tracking and monitoring of key performance indicators, forecasts, long-term plans and capital expenditures, financial reporting controls and processes, and the adequacy and reliability of management information used during the financial reporting process.

Key technical accounting matters and areas of critical accounting judgements and estimates made during the financial reporting process are monitored closely by management and the Group Audit Committee (GAC) and reviewed by external audit.

Taxation risk is the risk that any event, action, or inaction in tax strategy, operations, financial reporting or compliance that will adversely affects the group's tax objectives or results in an unanticipated or unacceptable level of tax liabilities. Taxation risk can arise from the following:

- Non-compliance with tax regulations resulting in penalties, fines, payment of interest or under provision of tax;
- Incorrect assessment, deduction and payment of tax liabilities;
- Ineffective tax planning and implementation at Group level; and
- Inability to engage with Revenue Authorities and other relevant governmental departments.

Nedbank is committed to being a responsible taxpayer, through professionally executed tax compliance and legitimate tax planning based on valid business purposes in fulfilling its compliance and disclosure obligations in accordance with all relevant laws and regulations in the jurisdictions in which Nedbank operates.

Nedbank strives to maintain an open, honest, constructive and positive working relationship with the Revenue Authorities in all jurisdictions where they operate and is committed to prompt disclosure and transparency in all tax matters. Nedbank recognises that there may be areas of differing legal interpretations between themselves and Revenue Authorities and where this occurs they will engage in proactive discussion with the view of resolving these issues as soon as possible.

Executive Taxation Forum is the committee that monitors tax compliance and tax policy and ensures the management of tax risk throughout the Nedbank Group in accordance with the Nedbank Tax Policy and to assist the GAC and the GRCMC in discharging their responsibilities relative to the management and monitoring of tax risk.

## Information technology risk

IT risk is defined by the Information Systems Audit and Control Association (an international professional body focused on IT governance) as the business risk associated with the use, ownership, operation, involvement, influence and adoption of IT within an enterprise. IT risk stems from the risks associated with misalignment of the business strategy, an uncoordinated or inefficient IT strategy, failure of projects to deliver the desired outcome, compromised data protection and information privacy, effects of physical disasters on information systems, IT outsourcing, IT performance and information systems security and governance. These risks may result in IT not delivering the capability required to support the achievement of the group's strategies or may not provide a competitive advantage in terms of the group's strategy.

Group Technology (GT) is the centralised IT function providing IT support and services throughout the Nedbank Group. During 2016, two new GT divisions were established to counter external threats and to exploit opportunities. The Digital Fast Lane division was introduced as a result of the emergence of Fintechs into the industry, and the Enterprise Data Services division was repositioned to capitalise on data intelligence opportunities. Nedbank's managed-evolution (ME) approach to technology aims to deliberately enhance our IT systems progressively over time and deliver the ongoing business benefits. ME programmes are executing on digitising the operating platforms, and there are also a number of future strategies in progress, continually building towards creating a 'multispeed' organisation that not only simplifies and digitises legacy platforms, but allows us to compete in a digitised and disintermediated global economy.

The ME journey balances digital transformation of core banking and client-facing platforms in response to rapid shifts in client preferences and competitive pressures. The ME Programme consists of multiple initiatives which collectively make up the digital transformation of Nedbank aimed primarily at improving client experience. It therefore addresses the requirements from a regulatory, data and client experience point of view and there are a number of interrelated dependencies between each of the initiatives. Various business priorities will be achieved by leveraging the enabling foundational capabilities into business releases, to ensure that they are integrated optimally alongside existing systems. This will ultimately redefine the businesses operating model, intensifying the focus on the client relationship and experience. This enhanced value creation will improve operational excellence and thereby capture a greater transactional banking market share and keep Nedbank competitive. The approach reduces the risk relating to large-scale system implementation, while enabling better control over Nedbank's expenses, which is key to delivery of the strategy. Implementation is progressing well with the majority of the ME programmes being fully mobilised and in execution. Evolution continues to be made on deepening the capability sets out of the various foundational programmes to reap future cost savings and efficiencies.

The use of IT, and therefore the associated technology risk, is pervasive in a large bank such as Nedbank. GT Risk provides effective risk management, supporting the overall GT strategy underpinned by the group's risk management frameworks. This supports the GT strategy by creating a risk and control culture which is embedded in the day-to-day behaviour within the cluster. Accordingly, IT risk is recognised as one of the key risks in Nedbank Group's risk universe and is addressed appropriately as follows:

- There is a separate major support cluster for IT, ie GT. The Managing Executive of GT is a member of the group exco.
- The GT Cluster identifies, assesses manages, monitors and reports on IT risk through the various risk frameworks and policies set out by the group. Oversight over IT risk exists from a first, second and third lines of defence. In 2016 the second line of defence oversight of IT risk was formalised.
- GT is Nedbank Group's centralised technology unit with the responsibility for all components of the group's technology processing, development and systems support. The functions that operate all of the group's IT systems, databases, technology infrastructure, and software development and IT projects/programme management are centrally managed to provide economies of scale and facilitate a cohesive group-wide technology strategy.
- Group Information Technology Committee, one of the board subcommittees, specifically focuses on IT from both an operational and strategic perspective inclusive of IT risk.
- The Executive Information Technology Committee, a subcommittee of the group exco, serves as a steering committee for IT related matters at group level.
- As with the other business clusters, the Divisional Executive for Risk is a member of the GT Cluster Exco and reports directly to the Managing Executive of GT.

## Reputational, strategic, social and environmental risks

Social and environmental risk is one of the 17 risk categories that Nedbank actively monitors. Whether strategic or operational in nature, it is viewed as seriously as all other risks to which our business is exposed.

Nedbank group's most significant social and environmental impacts are indirect and result from our lending and investment activities. These include responsible funding of renewable-energy, property development and infrastructure projects as well as high impact industries including non-renewable energy generation, mining, oil and gas, waste management and manufacturing. We take a partnership approach to all such sensitive investments, working closely with our clients and relevant authorities to maximise benefits and minimise the impacts of these activities.

In consultation with sustainability risk experts and various stakeholder groups such as government departments, non-governmental organisations (NGOs) and other relevant institutions, the group has developed a suite of sustainability risk mitigation tools and policies that not only protect shareholder interests, but also ensure the protection of communities and the environment. Some examples of these policy interventions and tools include:

- The Human Rights Framework.
- The Human Rights Statement.
- Sector policies for agriculture, mining, oil and gas, natural capital, waste and recycling.
- Hazardous Substances, Asbestos and Contaminated Land Sector Policy.

The group's recently completed Hazardous Substances, Asbestos and Contaminated Land Sector Policy is a particularly important sustainability risk management component, as it provides a comprehensive framework of applicable legislation by which the bank can monitor and assess our investment in sectors that have the potential to cause the greatest threat of lender liability under SA legislation.

Nedbank Group recognises the important role it has to play in helping to prevent and combat environmental degradation and pollution. This policy provides essential guidelines for monitoring and managing the use, storage and transport of hazardous substances and asbestos-containing material, and avoiding contamination of land, surface or groundwater and therefore use it to inform our advice, lending and service provision to the energy, fuel, agricultural, manufacturing, transport, construction, property development and waste management sectors.

With the rapidly shifting operating environment, both reputational and strategic and execution risk focus has been elevated in our risk plans and organisational focus.

The RRC and governance of reputational risk has been refreshed in 2016. The refresh has ensured that the committee is now a full sub-committee of the group exco, including attendance by the CE and CRO of Nedbank. With the current plethora of issues plaguing the financial services industry, escalating this committee has ensured that the management of reputational risk is receiving the necessary focus and attention it deserves.

In addition, Nedbank has a dedicated social media team that monitors and manages its social media presence.

Reputational risk in Nedbank is defined as the possibility of impairment of the group's image in the community or the long-term trust placed in the group by its shareholders as a result of a variety of factors, such as the group's performance, strategy execution, brand positioning and competitiveness, ability to create shareholder value, or an activity, action or stance taken by the group. This may result in loss of business and/or legal action.

The scope and authority of the RRC:

- Extends across Nedbank Group Limited and Nedbank Limited, and its subsidiaries, which must refer all reputational risk issues to the RRC for decision.
- Extends, without limitation or restriction, to all reputational risks arising from, or connected with, any and all risk categories, types, and classes of risk, inclusive of current and emerging risks both locally and globally (eg financial crime risk).
- Is to consider, decide upon and oversee reputational risks, to the group and any associated risks or issues that may potentially or actually pose a reputational risk, however arising in terms of regulations, group strategy and group policies.
- Is subject to the final authority of the CE to whom all significant reputational risk issues must be referred to with the recommendation of the RRC.

The Group Marketing, Communications and Corporate Affairs Cluster plays a major role in partnering with business to manage the group's image and reputation. Key functions include marketing and communications. The cluster is also responsible for developing the group's transformation strategy in response to the Broad-Based Black Economic Empowerment (B-BBEE) Codes of Good Practice as well as the Nedbank Foundation and managing public affairs.

The Nedbank Group brand image reflects the group's strong marketing and communication drive that has led to positive changes while retaining the aspirational elements, which are distinctly different from those of its competitors.

Enterprise Governance and Compliance is responsible for the monitoring of regulatory and reputational risk and the setting of related policies. It also manages the Enterprisewide Governance and Compliance Framework. Nedbank Group's governance strategy, objectives and structures have been designed to ensure that the group complies with legislation and a myriad of codes, while at the same time moving beyond conformance to governance performance.

The fundamentally shifting financial services and technological landscapes has forced upon additional scrutiny of the bank's strategy to ensure that it remains relevant, innovative, mobile and agile in the rapidly changing world. Nedbank manages its strategic risk via a dedicated Strategy unit, whose head is a member of the group exco.

In addition, the annual three-year business planning cycle is essentially one of forecasting and creating the bank's strategy that will propel it to thrive.

Fundamental to the three-year business planning process is the development of the group's risk and strategy plan, spear-headed by the CRO, ensuring that risk (as a threat, uncertainty and/ or opportunity) is factored into the development of the bank's strategy.

As a responsible corporate citizen, Nedbank considers and manages social risk via its corporate social initiatives. At the core of Nedbank's strategy and existence is its commitment to communities and the environment, where the bank seeks to be highly involved and contribute to the development of society. As a business, Nedbank recognises that it cannot operate in isolation. The success of the group as a business is highly influenced by the society and communities in which it operates and serves.

In 2016 Nedbank Group invested R141m towards education, skills development, health and community development programmes that are both empowering and sustainable - by encouraging others to do the same through various volunteerism initiatives.

## Human resources (or people) and transformation risks

People risk is associated with the inadequacies in human capital and the management of human resources, policies and processes which may result in the inability to attract, manage, motivate, develop and retain competent resources. This risk has a consequential negative impact on the achievement of the group's strategic objectives. Nedbank Group manages people risk through Group Human Resources, and the cluster Human Resources functions.

Closely related to people risk is transformation risk. This risk is defined as the failure by the group to adequately, proactively and positively respond and address transformation issues, eg Black Economic Empowerment, and uphold to related law, ie Employment Equity Act. People and transformation risks, key risks in the ERMF, are afforded the same focus as the other risks contained within the ERMF.

From a governance perspective people risk is supported through the following structures:

- Group Remuneration Committee – a subcommittee of the board.
- Group Transformation, Social and Ethics Committee – a subcommittee of the board.
- Executive Transformation and Human Resources Committee – a subcommittee of exco.
- Enterprisewide Human Resources Exco – comprising of Group HR executives and HR Cluster executives in the business.
- Group Human Resources Exco.
- Enterprisewide Human Resources Risk Committee.
- Group Human Resources Risk Committee.
- Group Transformation Forum.
- Nedbank Employment Equity Forum.

The Group Executive of Human Resources represents the HR community on these committees and is also a representative of group exco, however, other members of group exco may also attend as appropriate.

Succession planning for the Group Executive, Cluster Executive and Divisional Committee (with the latter completed at cluster level) roles is critical. A formal talent review process takes place annually to identify Nedbank Group's key talent and to ensure the approval of succession plans are made by the appropriate forums. Group exco succession plans are signed off by the CE and the Directors' Affairs Committee of the board.

The CE is required to regularly report to the board on the group's management development, transformation, organisational culture and talent management.

Nedbank Group has implemented a total remuneration philosophy with a purpose to attract, retain, motivate and reward its employees appropriately. This philosophy is aimed at encouraging sustainable long-term performance of the group. There is a strong aim to ensure that performance is closely aligned with the businesses strategic direction and value drivers. The interests of all stakeholders, which can be satisfied by prudent and appropriate risk taking, are integral to the total remuneration philosophy. For further information, please refer to the group's Remuneration Review, within the Nedbank Group Integrated Report 2016 (page 111 to 119) which can be found at [nedbank.co.za](http://nedbank.co.za).

The group's ERMF, ICAAP and financial performance rely heavily on the group's ability to attract and retain highly skilled individuals, which highlights that the effective management of people risk is a critical success factor. The group's current status and the extent of such skills are believed to be sound. However, the group recognises that this has to be actively managed and monitored on an ongoing basis.

Building a unique and innovative culture remains a key aspect of Nedbank Group's competitive advantage and brand differentiation, which is entrenched deep within its leadership philosophy of being 'vision-led and values-driven'. It directly impacts on Nedbank's ability to deliver high-quality client service. Alignment between the organisational and employee values leads to higher levels of commitment and engagement, which in turn positively influences innovation, creativity and accountability, as well as greater levels of trust, adaptability and productivity.

Employee fulfilment has a positive impact on client satisfaction, which further creates an increase in shareholder value. Based on this premise, the group strives to understand the current organisational climate and culture within which it operates by utilising relevant culture and engagement tools and surveys.

Nedbank aims to be at the forefront of transformation and leadership. Long-term sustainable success is highly dependent on the culture that leaders create. The culture that leaders create is highly dependent on their behaviour and their relationships with other leaders and employees in the organisation.

Nedbank has established a broader organisational culture vision for 2020. As part of this process, Nedbank has implemented the Competing Values Framework.

Using this framework, Nedbank will be able to define the current culture in Nedbank and then the required culture to win in 2020. In order to ensure the risk culture is aligned to Nedbank requirements, a risk culture benchmarking exercise will be undertaken to map the current Nedbank risk culture to the desired future risk culture, identify the gaps and areas for improvement and formulate a plan on the best way forward.

The status of risk and control culture within the business entities will be measured against these criteria, as the culture vision for Nedbank is operationalised.

Leading transformation continues to be one of the group's key focus areas. Transformation is a key component within organisational culture. Becoming a true reflection of the society in which an organisation operates is a key transformational challenge that the group faces. As a result, a new Inclusivity Strategy is being developed which is fundamentally aimed at creating a workplace where all employees feel they can contribute and develop. Therefore inclusivity forms a key part of Nedbank Group's transformation process. Nedbank Group understands the reality that most organisations are either 'strategically' or 'culturally' deficient and that a deficiency in either sphere impedes growth and success. Knowing this, the inclusivity initiatives form an integrated part of the Nedbank Group's effort to develop and build an organisational culture that can confidently execute its strategy. Nedbank continuously reviews, develops and implements its employment equity plans, which are designed to eliminate any form of unfair discrimination and sustain an inclusive work environment. For further information, please refer to the group's Transformation Report, within the Nedbank Group Integrated Report 2016, which can be found at [nedbank.co.za](http://nedbank.co.za).



# Annexure A: Abbreviations

ABBREVIATION	DEFINITION
ABCP	Asset-backed commercial paper
AFR	Available financial resources
AFS	Available-for-sale
AIRB	Advanced Internal Ratings-based
Alco	Asset and Liability Committee
ALM	Asset and liability management
AMA	Advanced Measurement Approach
AML	Anti-money-laundering
ASF	Available stable funding
BaU	Business-as-usual
B-BBEE	Broad-Based Black Economic Empowerment
BCBS	Basel Committee on Banking Supervision
BCM	Business Continuity Management
BCP	Business Continuity Plan
BEEL	Best estimate of expected loss
BEICF	Business environment and internal control factors
BSD	Bank Supervision Department
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
CLR	Credit loss ratio
CMF	Capital Management Framework
CMVU	Credit Model Validation Unit
COE	Cost of equity
COID	Compensation of Occupational Injuries and Diseases
COO	Chief Operating Officer
CPM	Credit Portfolio Model
CRAM	Credit Approval Meeting
CRM	Credit risk mitigation
CRO	Chief Risk Officer
CVA	Credit valuation adjustment
dEL	Downturn expected loss
dLGD	Downturn loss given default
D-SIB	Domestic Systemically Important Bank
DVA	Debit valuation adjustment
EAD	Exposure at default
EaR	Earnings-at-risk



ABBREVIATION	DEFINITION
ECAI	External credit assessment institution
ECL	Expected credit losses
EDP	Enterprise Data Programme
EDPM	Execution, delivery and process management
EDTF	Enhanced Disclosure Task Force
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
FAIS	Financial Advisory and Intermediary Services
FATCA	Foreign Account Tax Compliance Act
FCT	Foreign currency translation
FCTR	Foreign currency translation reserves
FIRB	Foundation IRB
FLAC	First loss after capital
FRTB	Fundamental Review of the Trading Book
FSB	Financial Services Board
FSRB	Financial Sector Regulatory Bill
GAC	Group Audit Committee
GCC	Group Credit Committee
GCPM	Group Credit Portfolio Management
GCR	Global Credit Ratings Co
GCRM	Group Credit Risk Monitoring
GDP	Gross domestic product
GIA	Group Internal Audit
GMRM	Group Market Risk Monitoring
GOI	Gross operating income
GORC	Group Operational Risk Committee
GORDM	Group Operational Risk and Data Management
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
G-SIB	Global Systemically Important Bank
GT	Group Technology
HQLA	High-quality liquid assets
HVCRE	High-volatility commercial real estate
IAA	Internal Assessment Approach
IAS	International Accounting Standard
IASB	International Accounting Standards Board
ICAAP	Internal Capital Adequacy Assessment Process
IFRS	International Financial Reporting Standards
ILAAP	Internal Liquidity Adequacy Assessment Process
ILD	Internal Loss Data

ABBREVIATION	DEFINITION
IMA	Internal Model Approach
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
IT	Information technology
JIBAR	Johannesburg Interbank Agreed Rate
JSE	Johannesburg Stock Exchange Limited
KRI	Key risk indicators
LAC	Loss-absorbing capital
LCR	Liquidity coverage ratio
LEAC	Large Exposure Approval Committee
LGD	Loss given default
LRCP	Liquidity Risk Contingency Plan
LSC	Liquidity Steering Committee
LTV	Loan-to-value
MFC	Motor Finance Corporation
MtM	Mark-to-market
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
NPL	Non-performing loan
NSFR	Net stable funding ratio
NTR	Nedbank Group Transaction Rating
OHS	Occupational Health and Safety
OHSA	Occupational Health and Safety Act
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
PIT	Point-in-time
POPI	Protection of Personal Information
PR	Property revaluation
Precinct	Precinct Funding 1 (RF) Limited
PSE	Public sector entities
QCCP	Qualifying central counterparty
QIS	Quantitative Impact Study
RAF	Risk Appetite Framework
RAPM	Risk-adjusted performance measurement
RBA	Ratings-based Approach
RBB	Retail and Business Banking
RCSA	Risk and control self-assessment
RDARR	Risk Data Aggregation and Risk Reporting
RDR	Retail Distribution Review

ABBREVIATION	DEFINITION
ROE	Return on equity
RORAC	Return on risk-adjusted capital
RP	Recovery plan
RRC	Reputational Risk Committee
RRP	Recovery and resolution plan
RWA	Risk-weighted assets
SA-CCR	Standardised Approach for measuring counterparty credit risk exposures
SAM	Solvency Assessment and Management
SARB	South African Reserve Bank
SARS	South African Revenue Service
SBP	Share-based payment
SCP	Strategic Capital Plan
SFA	Supervisory Formula Approach
SFT	Securities financing transactions
SME	Small- and medium-sized enterprises
SREP	Supervisory Review and Evaluation Process
SRWA	Simple Risk Weight Approach
SSFA	SA/Simplified Supervisory Formula Approach
SSFA	Simplified supervisory formula approach
STI	Short-term incentive
Synthesis	Synthesis Funding Limited
TCF	Treating Customers Fairly
TLAC	Total loss-absorbing capacity
TRC	Trading Risk Committee
TSA	The Standardised Approach
TTC	Through-the-cycle
UL	Unexpected loss/losses
VaR	Value at risk
VIU	Value in use
VUCA	Volatile, uncertain, complex and ambiguous

# Company details

## NEDBANK GROUP LIMITED

Incorporated in the Republic of SA  
Registration number 1966/010630/06

### Registered office

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### Transfer secretaries in SA

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Proprietary Limited  
15 Biermann Avenue, Rosebank,  
Johannesburg, 2196  
PO Box 61051, Marshalltown, 2107

### Namibia

Transfer Secretaries Proprietary  
Limited  
Robert Mugabe Avenue No 4,  
Windhoek, Namibia  
PO Box 2401, Windhoek, Namibia

## 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	



For further information send an  
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Investor Relations at  
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