45. FINANCIAL RISK MANAGEMENT

(a) Financial risk factors

The Group's objective is to provide long term capital growth and regular appreciation in dividend income distribution to investors. This objective is being fulfilled through investing in a diversified portfolio of equity and equity related investments.

(i) Banking specific segment

BNI Madagascar SA ("BNI") is a bank under the financial services segment. The Group analyses the financial risk management of BNI separately as the banking operations are different compared to other entities in the Group which are involved in various non-banking activities.

BNI's activities expose it to financial risks such as market risk (including currency and interest rate risk), credit risk and liquidity risk.

(ii) Non-banking specific segment

Textile segment

The cluster's credit risk is primarily attributable to its trade receivables and bank balances. For banks and financial institutions, the cluster only transacts with highly reputable counterparties. The amount presented within the Group's segmental note is net of allowances for doubtful receivables, estimated by the management based on prior experience and the current economic environment. The cluster has policies in place to ensure that sales of products and services are made to customers with an appropriate credit history.

Hotels and Resorts segment

The cluster has adopted a policy of only dealing with creditworthy counterparties and obtaining sufficient collateral, where appropriate, as a means of mitigating the risk of financial loss from defaults. The cluster only transact with entities of good credit rating. This information is supplied by independent rating agencies where available and, if not available, the cluster uses other publicly available financial information and its own trading records to rate its major customers. The cluster's exposure and the credit risks of its counterparties are continuously monitored. The carrying amount of financial assets recorded, which is net of impairment losses, represents the cluster's maximum exposure to credit risk without considering the value of any collateral obtained.

Agro & Property segment

The cluster's risk is primarily attributable to its receivables. The amount presented within the Group's segmental note is net of allowances for doubtful receivables, estimated by the management based on prior experience and the current economic environment.

Healthcare segment

The cluster's risk is primarily attributable to its trade receivables. The amount presented within the Group's segmental note is net of allowances for credit losses, estimated by the management based on prior experience and the current economic environment. The cluster has a dedicated debtors recovery team that monitors its debtors balance. Where applicable, the cluster takes necessary legal actions in order to recover its balances from the debtors. The cluster has no significant concentration of credit risk, with exposure spread over a large number of counterparties.

Financial services segment

The cluster's credit risk from its non-banking operations is primarily attributable to its trade receivables. The amounts presented in the statement of financial position are net of provision for impairment calculated in accordance with IFRS 9 based on history, the current economic environment, and future macro-economic variables. The cluster has policies in place to ensure that sales of services are made to customers with an appropriate private credit history. The credit quality of this financial asset can be assessed by the historical information about the financial strengths of the financial institutions the cluster is dealing with. In the opinion of the cluster, there is no associated risk as these are reputable institutions.

45. FINANCIAL RISK MANAGEMENT

(a) Financial risk factors (Cont'd)

The cluster has no significant concentration of credit risk, with exposure spread over a large number of counterparties and customers. The cluster has policies in place to ensure that sales of products and services are made to customers with an appropriate credit history. The maximum exposure to credit risk at the reporting date is the carrying value of each class of receivable. The cluster does not hold any collateral security for receivables relating to the non-banking segment.

(b) Credit risk

Credit risk is the risk of suffering financial loss, should any customers, clients or market counterparties fail to fulfil their contractual obligations to the Group.

(i) Non-banking specific segment

The credit risk exposure of the Group's non-banking segment has been assessed in Notes 19(e), 20 and 24.

(ii) Banking specific segment – BNI Madagascar SA ("BNI")

Credit risk arises mainly from commercial and consumer loans and advances, credit cards, and loan commitments arising from such lending activities, but can also arise from credit enhancement provided, such as financial guarantees, letters of credit, endorsements and acceptances.

The Bank is also exposed to other credit risks arising from investments in debt securities and other exposures arising from its trading activities ('trading exposures'). The exposure to credit risk is managed by the credit risk management team led by Chief Risk Officer who reports to the Indian Ocean Financial Holding Limited's (IOFHL) credit and risk committees.

Credit risk management

The Group has clear policies to manage its credit risks from its banking operations. This includes tolerance thresholds, maximum exposure limits, having an approval process that maintains the equilibrium between strategic objectives and risk management. All policies and limits are presented to the board for approval and information.

The strategy is to set a global acceptable level of risk and exposure limits and then to put in place the required framework to ensure that the risks taken remain within the acceptable threshold. The risk appetite approved by the Board includes a global limit set with regards to various counterparties, sovereigns and sectors. The credit policies are subject to an annual review.

Management regularly reviews the loan portfolio, including non-performing loans, and quarterly submits reports to the credit committee to ensure adequacy of provision and monitoring of non-performing facilities.

Risk limit control and mitigation policies

BNI manages limits and controls concentrations of credit risk wherever they are identified – within individual counterparties, groups and sectors.

BNI structures credit risk by placing limits on the level of risk accepted for one borrower, one group of borrowers, or for industry segments. Such risks are monitored on a recurring basis and are subject to annual or more frequent reviews when considered necessary. Limits on the level of credit risk by product or industry sector are monitored quarterly by the Credit Committee, which thereafter reports to the Board of Directors.

Lending limits are reviewed in the light of changing market and economic conditions and periodic credit reviews and assessments of probability of default.

45. FINANCIAL RISK MANAGEMENT (CONT'D)

(b) Credit risk (Cont'd)

(ii) Banking specific segment – BNI Madagascar SA ("BNI") (Cont'd)

Risk limit control and mitigation policies (Cont'd)

Counterpart limits

BNI defines a single counterparty as a legally and/or financially consolidated counterparty or group of counterparties. The local regulatory framework provides for two prudential ratios that need to be met at all times:

1. Commitment to a single counterparty should not exceed 35% of the Bank's equity 2
2. All major risks (cumulative commitments in favor of shareholders, the Board of Directors and auditors) is set at a maximum threshold of 10% of equity.

In principle, the maximum risk that the Bank is prepared to take is defined according to the creditworthiness, expected credit loss (ECL) and probability of default (PD) of the counterparty. And as a general rule, limits are proportional to both the equity of the bank and that of the counterparty.

Sectorial limits

BNI aims to maintain a reasonably diversified portfolio in terms of exposure to business sectors. To this end, limits have been set and regularly revised for the maximum credit exposure to a single sector (as a percentage of total exposure) according to the dynamics, outlook and risk profiles of each sector, assessed periodically through sector reviews carried out by the Bank.

Sovereign limits

The key attribute for determining sovereign limits is the country risk rating assessed by rating agencies and the sovereign risk assessment conducted internally. This assessment is regularly updated based on the macroeconomic outlook, changes in the business environment, the quality of governance as well as the country's political risk profile.

Credit monitoring system

- Watch-list committee in place to review changes in risk grade of customers and to closely monitor watch-listed customers.
- Close monitoring and follow up strategies have also been put in place to engage with borrowers as soon as they show signs of distresses (decrease in cash flow domiciliation, deterioration in risk grade and credit scoring, industry distress, etc.), especially in the corporate segment. An early warning system has been embedded to monitor borrower-specific signs of distress, and a systematic reporting is frequently addressed to senior management and risk committees.

Portfolio stress testing

- An effective portfolio stress test program is carried out periodically by the bank as it plays an important role in facilitating the development of credit risk mitigation plans.
- This stress test program is documented and the results analysed in order to strengthen the overall credit risk management framework.

Recovery

- The Recovery Unit has been reinforced and is being reorganized further to the appointment of a new Head of Recovery in May 2022.
- To be more effective in recovery and foster a better management of the NPL portfolio, a recoverability score mechanism is in place, especially for Corporate and SME NPLs. This approach allows the recovery department to adopt a proactive strategy for each segment.
- Enhancement of NPL report and dashboard to Senior Management and Board Credit Committees.

45. FINANCIAL RISK MANAGEMENT (CONT'D)

(b) Credit risk (Cont'd)

(ii) Banking specific segment – BNI Madagascar SA ("BNI") (Cont'd)

Risk limit control and mitigation policies (Cont'd)

Limit management and mitigation policies

(a) Collateral

As part of its policy to mitigate credit risks, the bank secures collateral against disbursed funds.

The principal collateral types for loans and advances are:

- Mortgages over residential properties.
- Charges over business assets such as premises, inventory and trade receivables.
- Charges over financial instruments such as debt securities and equities.

Longer-term finance and lending to corporate entities are generally secured; revolving individual credit facilities are generally unsecured. In addition, in order to minimise the credit loss, the bank seeks additional collateral from the counterparty as soon as impairment indicators are identified for the relevant loans and advances.

Collateral held as security for financial assets other than loans and advances depends on the nature of the instrument. Debt securities, treasury and other eligible bills are generally unsecured, with the exception of asset-backed securities and similar instruments, which are secured by portfolios of financial instruments.

(b) Lending limits (for loan books)

BNI maintains strict control limits on loan books. The amount subject to credit risk is limited to expected future net cash inflows of instruments, or notional values used to express the volume of instruments outstanding. This credit risk exposure is managed as part of the overall lending limits with customers, together with potential exposures from market movements.

Collateral or other security is not always obtained for credit risk exposures on these instruments, except where the Bank requires margin deposits from counterparties.

Settlement risk arises in any situation where a payment in cash, securities or equities is made in the expectation of a corresponding receipt in cash, securities or equities.

(c) Financial covenants (for credit related commitments and loan books)

Documentary and commercial letters of credit – which are written undertakings by the bank on behalf of a customer authorising a third party to draw drafts on the Bank up to a stipulated amount under specific terms and conditions – are collateralised by the underlying shipments of goods to which they relate and therefore carry less risk than a direct loan.

Commitments to extend credit represent unused portions of authorisations to extend credit in the form of loans, guarantees or letters of credit. With respect to credit risk on commitments to extend credit, BNI is potentially exposed to loss of an amount equal to the total unused commitments. However, the likely amount of loss is less than the total unused commitments, as most commitments to extend credit are contingent upon customers maintaining specific credit standards (often referred to as financial covenants).

BNI monitors the term to maturity of credit commitments because longer-term commitments generally have a greater degree of credit risk than shorter-term commitments.

45. FINANCIAL RISK MANAGEMENT (CONT'D)

(b) Credit risk (Cont'd)

(ii) Banking specific segment – BNI Madagascar SA ("BNI") (Cont'd)

Risk limit control and mitigation policies (Cont'd)

(d) Collateral review policy

As part of the monitoring of credit risks, the need for continuous monitoring of the realisable value of the collateral held by the bank is important in order to ensure that there is a net realizable value to cover the outstanding amount. Thus, the need to justify the valuation of collateral is necessary:

- Upon initial disbursement;
- When renewing the customer's credit line and according to the following criteria:
    - Real estate: every 3 years;
    - Vehicles and Equipment: every year;
    - For pledged stocks: as per frequency stipulated in the credit agreement which can vary from 3 months to a year
- Before the establishment of the pledge to ascertain the existence of stocks and to verify whether the stocks are pledged or not;
- At the first release and/or additional release via promissory notes ;
- On the renewal of promissory notes (generally quarterly)

Furthermore, at the request of the Risk Department, collateral assessment and/or reassessment reviews may be carried out without considering the above criteria. In addition, the general principles of collateral assessment and reassessment are mentioned in the collateral management policy of BNI.

The maximum exposure to credit risk before collateral for the banking segment is as follows:

	2022	2021
	MUR' 000	MUR' 000
Credit risk exposure to on-balance sheet assets:		
Cash and cash equivalents	9,755,292	7,376,395
Loans and advances to customers	24,281,657	19,868,113
Investment in securities	6,335,249	6,205,851
Trade and other receivables	513,224	522,821
Export documentary remittances	2,449,652	1,632,865
Total on balance sheet exposure	43,335,074	35,606,045
Credit risk exposure to off-balance sheet assets:		
Acceptances, guarantees, letter of credit and other obligations on account of customers	4,413,841	4,635,521
Total on and off-balance sheet exposure	47,748,915	40,241,566

45. FINANCIAL RISK MANAGEMENT (CONT'D)

(b) Credit risk (Cont'd)

(ii) Banking specific segment – BNI Madagascar SA ("BNI") (Cont'd)

Risk limit control and mitigation policies (Cont'd)

BNI also reviews its concentration risk to ensure that it is not significantly exposed to a specific category of customers. The table below analyses BNI's exposure:

	2022		2021	
	MUR '000	Exposure	MUR '000	Exposure
Corporate	17,877,831	41%	17,731,660	50%
Central Bank	10,491,447	24%	3,021,796	8%
Financial institution	5,599,094	13%	9,520,009	27%
Retail	9,366,702	22%	5,332,580	15%
	43,335,074		35,606,045	

Credit risk measurement

Loans and advances (including loan commitments and guarantees)

The estimation of credit exposure for risk management purposes is complex and requires the use of models, as the exposures vary with changes in market conditions, expected cash flows and the passage of time. The assessment of credit risk of a portfolio of assets entails further estimations as to the likelihood of defaults occurring, of the associated loss ratios and of default correlations between counterparties.

In measuring credit risk of loan and advances at a counterparty level, BNI considers three components: (i) the 'probability of default' (PD) by the client or counterparty on its contractual obligations; (ii) current exposures to the counterparty and its likely future development, from which the Group derives the 'exposure at default' (EAD); and (iii) the likely recovery ratio on the defaulted obligations (the 'loss given default') (LGD). The models are reviewed regularly to monitor their robustness relative to actual performance and amended as necessary to optimise their effectiveness. These credit risk measurements, which reflect expected loss (the 'expected loss model'), are required by the Basel Committee on Banking Regulations and the Supervisory Practices (the Basel Committee) and are embedded in the Group's daily operational management.

This is similar to the approach used for the purposes of measuring Expected Credit Loss (ECL) under IFRS 9.

(i) Probability of default

The probability of default (PD) is the likelihood that a particular borrower will default. IFRS 9 requires a multi-period forward-looking measure of PD that depends on macroeconomic factors. In other words, the PD model must produce a term structure of point in time PDs. Using historical data, a survival model was developed to produce a through-the-cycle PD term structure, followed by an econometric regression of the PDs for calibration to a point in time term structure over 5 years.

(ii) Exposure at default

EAD is based on the amounts BNI expects to be owed at the time of default. For example, for a loan this is the face value. For a commitment, BNI includes any amount already drawn plus the further amount that may have been drawn by the time of default, should it occur. The EAD for term loans and leases is estimated by calculating the expected exposure for the next 12 months. Firstly, the expected closing balance is estimated (assuming the borrower will pay regularly up to the month under observation). Off Balance sheets items comprise of Bank Guarantee, Letter of Credit, Acceptance, Swap, Spot and Forward.

45. FINANCIAL RISK MANAGEMENT (CONT'D)

(b) Credit risk (Cont'd)

(ii) Banking specific segment – BNI Madagascar SA ("BNI") (Cont'd)

Credit risk measurement (Cont'd)

(iii) Loss given default/loss severity

Loss given default or loss severity represents BNI's expectation of the extent of loss on a claim should default occur. It is expressed as percentage loss per unit of exposure. It typically varies by type of counterparty, type and seniority of claim and availability of collateral or other credit support.

The measurement of exposure at default and loss given default is based on the risk parameters standard under Basel II. For measuring the exposure for credit risk on a portfolio basis (for example, mortgage loans).

For both LGD and PD, the Bank segmented its book based on its various segments (Retail, Corporate, SME, Institutional). Collateral was also factored in the model as it indicates a better probability of recovery.

Based on a historical measurement, the bank adopted a calculated LGD for the retail and SME segments. To appropriately reflect the economic value of the amounts recovered, especially with regards to the recovery time after the contract breach, the use of the present value notion has been integrated into the computation. A discounting factor has been applied to derive the present value of the recovered amount. Therefore, the LGD rate is calculated as follows:

LGD (%) = 1- (Present value of recovered amount/Outstanding)

Note:

Present value of recovered amount = (Adjusted outstanding – Write-off – Recovery fees + Write-off recuperation) * Discounting factor

Discounting factor = 1/(1+discount rate)^n

BNI used the Average Interest Rate as Discount rate, which represents portfolio yield rate by segment.

n: number of years between the date of contract breach and the date the file is closed.

For the Corporate and Institutional segments, data available is not relevant as the sample is reduced to less than 90 occurrences by year since 2017. For these segments, the Bank has adopted an LGD figure of 65%, which is more conservative than Basel III guidelines (45%).

45. FINANCIAL RISK MANAGEMENT (CONT'D)

(b) Credit risk (Cont'd)

(ii) Banking specific segment – BNI Madagascar SA ("BNI") (Cont'd)

Credit risk measurement (Cont'd)

The table below represents an analysis of BNI's assets as at 30 June 2022 and 2021:

	AAA	BB/BB	CC	Unrated	Total
2022	MUR '000	MUR '000	MUR '000	MUR '000	MUR '000
Credit rating					
Loans and advances to customers	**625,921**	**13,125,464**	**2,942,559**	**7,587,713**	**24,281,657**
Investment in securities	**-**	**6,302,826**	**-**	**32,423**	**6,335,249**
Cash and cash equivalent	**-**	**4,707,188**	**-**	**5,048,104**	**9,755,292**
Trade and other receivables	**-**	**-**	**1,473**	**511,751**	**513,224**
Export documentary remittances	**-**	**-**	**-**	**2,449,652**	**2,449,652**
	625,921	**24,135,478**	**2,944,032**	**15,629,643**	**43,335,074**
Off balance sheet exposure	**1,521,074**	**2,553,669**	**42,681**	**296,417**	**4,413,841**
Total on and off-balance sheet	**2,146,995**	**26,689,147**	**2,986,713**	**15,926,060**	**47,748,915**
2021					
Credit rating					
Loans and advances to customers	87,059	11,206,527	2,701,593	5,872,934	19,868,113
Loans and advances to banks					0
Investment in securities	-	6,175,053	-	30,798	6,205,851
Cash and cash equivalent	-	3,228,539	-	4,147,856	7,376,395
Trade Receivables	-	-	1,459	521,362	522,821
Export documentary remittances	-	-	-	1,632,865	1,632,865
	87,059	20,610,119	2,703,052	12,205,815	35,606,045
Off balance sheet exposure	2,083,098	1,713,142	59,293	779,988	4,635,521
Total on and off-balance sheet	2,170,157	22,323,261	2,762,345	12,985,803	40,241,566

45. FINANCIAL RISK MANAGEMENT (CONT'D)

(b) Credit risk (Cont'd)

(ii) Banking specific segment – BNI Madagascar SA ("BNI") (Cont'd)

Credit risk measurement (Cont'd)

BNI's internal rating scale and mapping of external ratings are set out below:

Internal RATE	PD	PD range	S &P'S	Grade description	IFRS9 Staging
A+	0.00%	0.00%	AAA	Investment Grade	
A+	0.00%	0.00%	AA+&AA	Investment Grade	
A	0.01%	< 0,01%		Investment Grade	
B+	0.02%	0,02 - 0,04%	AA-	Investment Grade	
B+	0.02%	0,02 - 0,04%	A+	Investment Grade	Stage 1
B	0.06%	0,04 - 0,08%	A	Investment Grade	
B	0.06%	0,04 - 0,08%	A-	Investment Grade	
C+	0.16%	0,08 - 0,16%	BBB+	Investment Grade	
C	0.30%	0,16 - 0,32%	BBB	Investment Grade	
C-	0.60%	0,32 - 0,64%	BBB-	Investment Grade	
D+	0.75%	0,64 - 0,85%	BB+	Non-Investment Grade	
D	1.25%	0,85 - 1,28%	BB	Non-Investment Grade	Stage 2
D-	1.90%	1,28 - 2,56%	BB-	Non-Investment Grade	
E+	5.00%	2,56 - 5,12%	B+&B	Non-Investment Grade	
E	12.00%	5,12 - 15%	B-	Non-Investment Grade (Watchlist)	Stage 2 or 3
E-	20.00%	> 15%	CCC&C	Non-Investment Grade (Watchlist)	
F	100.00%	100.00%	D	Default (without legal action)	Stage 3
Z	100.00%	100.00%	D	Default (with legal action)	

Expected credit loss measurement (ECL)

The IFRS 9 impairment model requires the recognition of impairment provisions based on expected credit losses (ECL). It applies to financial assets classified at amortised cost, debt instruments measured at FVOCI, lease receivables, loan commitments and certain financial guarantee contracts. The Bank's debt instruments that are currently classified as held-to-maturity and measured at amortised cost which meet the conditions for classification at amortised cost under IFRS 9.

45. FINANCIAL RISK MANAGEMENT (CONT'D)

(b) Credit risk (Cont'd)

(ii) Banking specific segment – BNI Madagascar SA ("BNI") (Cont'd)

Expected credit loss measurement (ECL) (Cont'd)

IFRS 9 outlines a 'three-stage' model for impairment based on changes in credit quality since initial recognition as summarised below:

- A financial instrument that is not credit-impaired on initial recognition is classified in 'stage 1' and has its credit risk continuously monitored by the Bank.
- If a significant increase in credit risk (SICR) since initial recognition is identifies, the financial instrument is moved to 'Stage 2' but is not yet deemed to be credit impaired. Refer to the next section for a description of how the Bank determines when a significant increase in credit risk has occurred.
- If the financial instrument is credit-impaired, the financial instrument is then moved to 'stage 3'. The definition of default and credit-impaired asset has been provided in the next section.
- Financial instruments in stage 1 have their ECL measured at an amount equal to the portion of lifetime expected credit losses that result from default events within the next 12 months. Instruments in stages 2/3 have their ECL measured on expected credit losses on a lifetime basis. Refer to the next section for a description of inputs, assumptions and estimation techniques used in measuring ECL.
- A pervasive concept in measuring ECL in accordance with IFRS 9 is that it should consider forward-looking information.
- Purchased or originated credit-impaired financial assets are those financial assets that are credit-impaired on initial recognition. Their ECL is always measured on a lifetime basis (stage 3). Currently the Bank does not have any purchased or originated credit-impaired financial assets on its books.

For expected credit loss provisions modelled on a collective basis, a grouping of exposures is performed on the basis of shared credit risk characteristics, such that risk exposures within a group are homogeneous. The Bank's groupings are mainly based on product type.

The following diagram summarises the impairment requirements under IFRS 9 (other than purchased or originated credit impaired financial assets):

CHANGE IN CREDIT QUALITY SINCE INITIAL RECOGNITION

STAGE 1	STAGE 2	STAGE 3
(Initial recognition)	(Significant increase in credit risk since initial recognition)	(Credit-impaired assets)
12-Month expected credit losses	Lifetime expected credit losses	Lifetime expected credit losses

45. FINANCIAL RISK MANAGEMENT (CONT'D)

(b) Credit risk (Cont'd)

(ii) Banking specific segment – BNI Madagascar SA ("BNI") (Cont'd)

Expected credit loss measurement (ECL) (Cont'd)

The key judgements and assumptions adopted by the bank in addressing the requirements of the standard are discussed below:

Significant increase in credit risk (SICR)

The bank considers a financial instrument to have experienced a significant increase in credit risk when one or more of the following qualitative or backstop criteria have been met.

Qualitative criteria

For Retail portfolios, if the borrower meets one or more of the following criteria:

- Short-term forbearance
- Direct debit cancellation
- Extension to the terms granted
- Arrears within the last (12) months

For Corporate and Investment portfolios, if the borrower is on the Watchlist and/or the instrument meets one or more of the following criteria:

- Significant increase in credit spread
- Significant adverse changes in business, financial and/or economic conditions in which the borrower operates
- Actual or expected forbearance or restructuring
- Actual or expected significant adverse change in operating results of the borrower
- Significant change in collateral value (secured facilities only) which is expected to increase risk of default
- Early sign of cashflow/liquidity problems such as delay in servicing of trade creditors/loans

The assessment of SICR is performed on a quarterly basis at a portfolio level for all retail financial instruments held by the Bank. In addition to Corporate and Investment Financial Instruments, where a watchlist is used to monitor credit risk, this assessment is performed at the counterparty level on a quarterly basis. The criteria used to identify SICR are monitored and reviewed periodically for appropriateness by the independent Credit Risk team.

A backstop is applied and the financial instrument considered to have experienced a significant increase in credit risk if the borrower is more than 30 days past due on its contractual payments.

Definition of default and credit-impaired assets

BNI defines a financial instrument as in default, which is fully aligned with the definition of credit-impaired, when it meets one or more of the following criteria:

Quantitative criteria

The borrower is more than 90 days past due on its contractual payments.

The borrower is more than 90 days past due on its contractual payments.

The borrower meets unlikeliness to pay criteria which indicates the borrower is in significant financial difficulty. These are instances where:

- The borrower is in long-term forbearance
- The borrower is deceased
- The borrower is insolvent
- The borrower is in breach of financial covenant(s)
- An active market for that financial asset has disappeared because of financial difficulties

45. FINANCIAL RISK MANAGEMENT (CONT'D)

(b) Credit risk (Cont'd)

(ii) Banking specific segment – BNI Madagascar SA ("BNI") (Cont'd)

Quantitative criteria (Cont'd)

- Concessions have been made by the lender relating to the borrower's financial difficulty
- It is becoming probable that the borrower will enter bankruptcy
- Financial assets are purchased or originated at a deep discount that reflects the incurred credit losses

The criteria above have been applied to all financial instruments held by the bank and are consistent with the definition of default used for internal credit risk management purposes. The default definition has been applied consistently to model the Probability of Default (PD), Exposure at Default (EAD) and Loss Given Default (LGD) throughout the bank's expected loss calculations.

In case of restructuring and debt consolidation, the asset is considered to be no longer in default (i.e., to have cured) when: (a) down payment of 10% of outstanding debts is made before the consolidation takes place or (b) there is no default after a cooling period of six months.

Measuring ECL- Explanation of inputs, assumptions and estimation techniques

The Expected Credit Loss (ECL) is measured on either a 12-month (12M) or Lifetime basis depending on whether a significant increase in credit risk has occurred since initial recognition or whether an asset is considered to be credit-impaired. Expected credit losses are discounted product of the Probability of Default (PD), Exposure at Default (EAD) and Loss Given Default (LGD), defined as follows:

- The PD represents the likelihood of a borrower defaulting on its financial obligation (as per 'Definition of default and credit-impaired' above), either over the next 12 months (12M PD), or over the remaining lifetime (Lifetime PD) of the obligation.
- EAD is based on the amounts the Bank expects to be owed at the time of default, over the next 12 months (12M PD), or over the remaining lifetime (Lifetime EAD). For example, for a revolving commitment, the Bank includes the current drawn balance plus any further amount that is expected to be drawn up to the current contractual limit by the time of default, should it occur.
- Loss Given Default (LGD) represents the Bank expectation of the extent of loss on a defaulted exposure. LGD varies by type of counterparty, type and seniority of claim and availability of collateral or other credit support.
- LGD is expressed as a percentage loss per unit of exposure at the time of default (EAD). LGD is an estimate of loss from a transaction, given that a default occurs. It is computed as the loss amount which equals the write-offs, recovery costs, finance fees as a proportion of the exposure at the time of default.

The ECL is determined by projecting the PD, LGD and EAD for each future year and for each individual exposure or collective segment. These three components are multiplied together and adjusted for the likelihood of survival (i.e. the exposure has not prepaid or defaulted in an earlier month). This effectively calculates an ECL for each future year, which is then discounted back to the reporting date and summed. The discount rate used in the ECL calculation is the original effective interest rate or an approximation thereof.

The 12-month and lifetime EADs are determined based on the expected payment profile, which varies by product type:

- For amortizing products and bullet repayment loans, this is based on the contractual repayments owned by the borrower over a 12M or lifetime basis. This will be adjusted for any expected overpayments made by a borrower. Early repayment/ refinance assumptions are also incorporated into the calculation.

45. FINANCIAL RISK MANAGEMENT (CONT'D)

(b) Credit risk (Cont'd)

(ii) Banking specific segment – BNI Madagascar SA ("BNI") (Cont'd)

Measuring ECL- Explanation of inputs, assumptions and estimation techniques (Cont'd)

- For revolving products, the exposure at default is predicted by taking current drawn balance and adding a 'credit conversion factor' (CCF) which allows for the expected drawdown of the remaining limit by adding the time of default. These assumptions vary by product type and current limit utilisation band, based on analysis of the Bank's recent default data.

LGD are determined based on the factors which impact the recoveries made post default, per customer type and by secured/unsecured status.

The lifetime PD is computed using the survival analysis method. Using historical data, a survival model was developed to produce a through-the-cycle PD term structure for each portfolio, followed by an econometric regression of the PDs for calibration to a point in time term structure. The lifetime PD is an aggregate of the years in the term structure. The 12-month PD is computed from the term structure as a geometric average of the yearly PDs.

The assumptions under the ECL calculation- such as how the maturity profile of the PDs and how collateral value change are monitored and reviewed on a quarterly basis. There have been no significant changes in estimation techniques or significant assumptions made during the reporting period.

Forward-looking information incorporated in the ECL models

The calculation of ECL incorporates forward-looking information in the PD model. The PD model projects default rates using economic forecasts and uses a mean reversion approach i.e., the model assumes that projected default rates tend toward the long run average default rate. Together, these allow for the calibration of historical through-the-cycle PDs to forward-looking point-in-time PDs.

The Bank has performed an econometric regression on quarterly historical data to identify the key economic determinants of credit risk in Madagascar. The regression revealed 3 major economic determinants of default rates namely: inflation, private sector credit and exports. BNI used the results of the regression together with economic forecasts of these determinants to arrive at projected default rates.

Economic forecasts are provided by the bank's risk team on a yearly basis and provide the best estimate view of the economy over the next 5 years. Base case forecasts were sourced from trusted third parties (IMF, World Bank). Expert judgement was applied to arrive at pessimistic case forecasts, reflecting the impact of COVID-19. No optimistic case forecasts were derived in the current economic context. Expert judgement also revealed that these forecasts impact every portfolio the same way and so the same forecasts were used for each.

Base case and pessimistic case point-in-time PDs were produced, and these were averaged to arrive at the final point-in-time PD term structure. Same logic was applied across portfolios and staging.

As with any economic forecasts, the projections and likelihoods of occurrence are subject to a high degree of inherent uncertainty and therefore the actual outcomes may be significantly different to those projected. BNI considers these forecasts to represent its best estimate of the possible outcomes.

Economic variables assumptions

The most significant period-end economic assumptions used in the ECL estimate as of 30 June 2022 are set out below. The scenarios "base case" and "pessimistic case" were used for all portfolios and the rates were the same across all of them. The weightings of each scenario were fixed at 50%. In other words, base case and pessimistic case point-in-time PDs were averaged to arrive at a final term structure. No optimistic case was considered.

45. FINANCIAL RISK MANAGEMENT (CONT'D)

(b) Credit risk (Cont'd)

(ii) Banking specific segment – BNI Madagascar SA ("BNI") (Cont'd)

Economic variables assumptions (Cont'd)

Other forward-looking considerations not otherwise incorporated within the above scenarios, such as the impact of any regulatory, legislative or political changes, have also been considered, but are not deemed to have a material impact and therefore no adjustment has been made to the ECL for such factors. This is reviewed and monitored for appropriateness on a yearly basis.

Economic forecasts are provided in the table below. For ease of presenting, yearly forecasts are provided (whereas the model uses quarterly forecasts).

		2022	2023	2024	2025	2026
Inflation Rate	Base Case	7.40%	7.90%	6.60%	6.20%	5.90%
	Pessimistic Case	6.20%	6.50%	5.50%	5.20%	4.90%
Change in Exports	Base Case	23.30%	13.60%	8.70%	9.10%	13.70%
	Pessimistic Case	17.50%	10.20%	6.50%	6.80%	10.20%
Change in Credit	Base Case	13.00%	11.80%	11.50%	10.30%	9.30%
	Pessimistic Case	7.80%	4.90%	6.00%	5.10%	4.40%

Sensitivity analysis

The most significant economic assumptions affecting ECL allowance are as follows:

1. Inflation. Given inflation's positive correlation with company pricing power as well as the fact that Madagascar government policy tries to increase wages with inflation. Inflation is also a signal of the economic cycle.
2. Change in exports. Exporting goods bring income into the economy contributing positively to GDP, which in turn contributes to a reduction in default rates.
3. Change in private sector credit. Rising private sector credit implies greater funding capacity for growth which contributes to lower default rates. It could also mean loans are being extended / repurchased for later periods.

45. FINANCIAL RISK MANAGEMENT (CONT'D)

(b) Credit risk (Cont'd)

(ii) Banking specific segment – BNI Madagascar SA ("BNI") (Cont'd)

Sensitivity analysis (Cont'd)

Set out below is a sensitivity analysis on these 3 variables, where each was increased relatively by 10%.

Economic Forecast	Change in ECL (MUR'000)
Inflation Rate	(17,853)
Change in Exports	(1,939)
Change in Credit	(10,771)

A sensitivity analysis was done to compare the impact on the ECL assuming each of the forward-looking base case and pessimistic scenarios were weighted 100% instead of applying scenario probability weights across the three scenarios.

Economic Scenario	ECL (MUR'000)
Base Case	(51,523)
Pessimistic Case	53,766

Maximum exposure to credit risk- Financial instruments subject to impairment

The following table contains an analysis of the credit risk exposure of financial instruments for which an ECL allowance is recognised. The gross carrying amount of financial assets overleaf also represents the Bank's maximum exposure to credit risk on these assets:

45. FINANCIAL RISK MANAGEMENT (CONT'D)

(b) Credit risk (Cont'd)

(ii) Banking specific segment – BNI Madagascar SA ("BNI") (Cont'd)

Loans and advances to customers at amortised cost

	30 June 2022			
	Stage 1	Stage 2	Stage 3	Total
	MUR '000	MUR '000	MUR '000	MUR '000
Performing	20,708,310	-	-	20,708,310
Special Mention	-	1,745,740		1,745,740
Sub-Standard	-	-	3,671,731	3,671,731
Gross carrying amount	20,708,310	1,745,740	3,671,731	26,125,781
Loss Allowance	(264,700)	(68,302)	(1,511,122)	(1,844,124)
Carrying amount	20,443,610	1,677,438	2,160,609	24,281,657

	30 June 2021			
	Stage 1	Stage 2	Stage 3	Total
	MUR '000	MUR '000	MUR '000	MUR '000
Performing	16,408,872	-	-	16,408,872
Special Mention	-	1,932,844	-	1,932,844
Sub-Standard	-	-	2,924,133	2,924,133
Gross carrying amount	16,408,872	1,932,844	2,924,133	21,265,849
Loss Allowance	(141,754)	(42,807)	(1,213,175)	(1,397,736)
Carrying amount	16,267,118	1,890,037	1,710,958	19,868,113

45. FINANCIAL RISK MANAGEMENT (CONT'D)

(b) Credit risk (Cont'd)

(ii) Banking specific segment – BNI Madagascar SA ("BNI") (Cont'd)

Investment in securities at amortised cost

	30 June 2022			
	Stage 1	**Stage 2**	**Stage 3**	**Total**
	MUR '000	MUR '000	MUR '000	MUR '000
Performing	6,336,485	-	-	6,336,485
Special Mention	-	-	-	-
Sub-Standard	-	-	-	-
Gross carrying amount	6,336,485	-	-	6,336,485
Loss allowance	(1,236)	-	-	(1,236)
Carrying amount	6,335,249	-	-	6,335,249

	30 June 2021			
	Stage 1	**Stage 2**	**Stage 3**	**Total**
	MUR '000	MUR '000	MUR '000	MUR '000
Performing	6,208,272	-	-	6,208,272
Special Mention	-	-	-	-
Sub-Standard	-	-	-	-
Gross carrying amount	6,208,272	-	-	6,208,272
Loss allowance	(2,421)	-	-	(2,421)
Carrying amount	6,205,851	-	-	6,205,851

45. FINANCIAL RISK MANAGEMENT (CONT'D)

(b) Credit risk (Cont'd)

(ii) Banking specific segment – BNI Madagascar SA ("BNI") (Cont'd)

Cash and cash equivalents at amortised cost

	30 June 2022			
	Stage 1	**Stage 2**	**Stage 3**	**Total**
	MUR '000	MUR '000	MUR '000	MUR '000
Performing	9,712,032	-	-	9,712,032
Special Mention	-	44,881	-	44,881
Sub-Standard	-	-	-	-
Gross carrying amount	9,712,032	44,881	-	9,756,913
Loss allowance	(1,579)	(41)	-	(1,620)
Carrying amount	9,710,453	44,840	-	9,755,293

	30 June 2021			
	Stage 1	**Stage 2**	**Stage 3**	**Total**
	MUR '000	MUR '000	MUR '000	MUR '000
Performing	7,378,830	-	-	7,378,830
Special Mention	-	-	-	-
Sub-Standard	-	-	-	-
Gross carrying amount	7,378,830	-	-	7,378,830
Loss allowance	(1,288)	-	-	(1,288)
Carrying amount	7,377,542	-	-	7,377,542

45. FINANCIAL RISK MANAGEMENT (CONT'D)

(b) Credit risk (Cont'd)

(ii) Banking specific segment – BNI Madagascar SA ("BNI") (Cont'd)

Trade and other receivables at amortised cost

	30 June 2022			
	Stage 1	Stage 2	Stage 3	Total
	MUR '000	MUR '000	MUR '000	MUR '000
Performing	511,751	-	-	511,751
Special Mention	-	-	-	-
Sub-Standard	-	-	2,430	2,430
Gross carrying amount	511,751	-	2,430	514,181
Loss Allowance	-	-	(957)	(957)
Carrying amount	511,751	-	1,473	513,224

	30 June 2021			
	Stage 1	Stage 2	Stage 3	Total
	MUR '000	MUR '000	MUR '000	MUR '000
Performing	521,362	-	-	521,362
Special Mention	-	-	-	-
Sub-Standard	-	-	2,408	2,408
Gross carrying amount	521,362	-	2,408	523,770
Loss Allowance	-	-	(949)	(949)
Carrying amount	521,362	-	1,459	522,821

45. FINANCIAL RISK MANAGEMENT (CONT'D)

(b) Credit risk (Cont'd)

(ii) Banking specific segment – BNI Madagascar SA ("BNI") (Cont'd)

Off-Balance Sheet items

	30 June 2022			
Financial guarantees	Stage 1	Stage 2	Stage 3	Total
	MUR '000	MUR '000	MUR '000	MUR '000
Performing	4,328,320	-	-	4,328,320
Special Mention	-	107,803	-	107,803
Sub-Standard	-	-	9,280	9,280
Gross carrying amount	4,328,320	107,803	9,280	4,445,403
Loss allowance	(23,571)	(4,184)	(3,807)	(31,562)
Carrying amount	4,304,749	103,619	5,473	4,413,841

	30 June 2021			
Financial guarantees	Stage 1	Stage 2	Stage 3	Total
	MUR '000	MUR '000	MUR '000	MUR '000
Performing	4,605,884	-	-	4,605,884
Special Mention	-	36,412	-	36,412
Sub-Standard	-	-	10,703	10,703
Gross carrying amount	4,605,884	36,412	10,703	4,652,999
Loss allowance	(12,389)	(728)	(4,361)	(17,478)
Carrying amount	4,593,495	35,684	6,342	4,635,521

45. FINANCIAL RISK MANAGEMENT (CONT'D)

(b) Credit risk (Cont'd)

(ii) Banking specific segment – BNI Madagascar SA ("BNI") (Cont'd)

Credit impaired assets

	30 June 2022			
	Gross Exposure	**Impairment Allowance**	**Carrying Amount**	**Fair value of collateral held**
	MUR '000	MUR '000	MUR '000	MUR '000
Loans and advances to customers:				
Individual	735,084	(328,406)	406,678	72,730
Professional - SME	891,082	(383,380)	507,702	989,075
Mid-Cap	1,003,581	(395,350)	608,231	3,712,000
Institutional	15,629	(6,157)	9,472	15,592
Corporate	953,292	(375,539)	577,753	2,312,082
Civil Servant	73,063	(22,290)	50,773	3,304
Total	3,671,731	(1,511,122)	2,160,609	7,104,783
Financial guarantees	9,280	(3,807)	5,473	102,128
Total credit-impaired assets	3,681,011	(1,514,929)	2,166,082	7,206,911

	30 June 2021			
	Gross Exposure	**Impairment Allowance**	**Carrying Amount**	**Fair value of collateral held**
	MUR '000	MUR '000	MUR '000	MUR '000
Loans and advances to customers:				
Individual	650,362	(295,146)	355,216	27,236
Professional - SME	587,594	(255,118)	332,476	566,464
Mid-Cap	893,858	(352,812)	541,046	3,288,292
Institutional	7,322	(2,890)	4,432	3,379
Corporate	742,004	(292,842)	449,162	1,469,927
Civil Servant	42,993	(14,367)	28,626	-
Total	2,924,133	(1,213,175)	1,710,958	5,355,298
Financial guarantees	10,703	(4,361)	6,342	269,093
Total credit-impaired assets	2,934,836	(1,217,536)	1,717,300	5,624,391

45. FINANCIAL RISK MANAGEMENT (CONT'D)

(b) Credit risk (Cont'd)

(ii) Banking specific segment – BNI Madagascar SA ("BNI") (Cont'd)

The following tables explain the changes in the loss allowance during the year due to these factors.

Loans and advances to customers – Individual

Loss allowance	**Stage 1 12-month ECL**	**Stage 2 Lifetime ECL**	**Stage 3 Lifetime ECL**	**Total**
	MUR '000	MUR '000	MUR '000	MUR '000
Loss allowance as at 1 July 2020	98,544	6,354	200,984	305,882
New financial assets originated/ purchased/(derecognised)	44,052	6,102	102,778	152,932
Transfer to Civil Servant Segment	(10,344)	(666)	(21,095)	(32,105)
Changes to PDs/LGDs/EADs	(62,136)	(4,051)	859	(65,328)
Transfers:				
Transfer from Stage 1 to Stage 2	(1,235)	1,623	-	388
Transfer from Stage 1 to Stage 3	(656)	-	13,204	12,548
Transfer from Stage 2 to Stage 1	205	(807)	-	(602)
Transfer from Stage 2 to Stage 3	-	(556)	3,519	2,963
Transfer from Stage 3 to Stage 1	60	-	(1,827)	(1,767)
Transfer from Stage 3 to Stage 2	-	454	(4,152)	(3,698)
Foreign exchange movement	208	26	876	1,110
Loss allowance as at 30 June 2021	68,698	8,479	295,146	372,323
New financial assets originated/purchased/(derecognised)	**81,044**	**4,772**	**85,076**	**170,892**
Transfer to Civil Servant Segment	**-**	**-**	**-**	**-**
Changes to PDs/LGDs/EADs	**(23,028)**	**(3,879)**	**(81,279)**	**(108,186)**
Transfers:				
Transfer from Stage 1 to Stage 2	**(740)**	**4,505**	**-**	**3,765**
Transfer from Stage 1 to Stage 3	**(753)**	**-**	**24,176**	**23,423**
Transfer from Stage 2 to Stage 1	**1,605**	**(3,212)**	**-**	**(1,607)**
Transfer from Stage 2 to Stage 3	**-**	**(397)**	**4,379**	**3,982**
Transfer from Stage 3 to Stage 1	**63**	**-**	**(591)**	**(528)**
Transfer from Stage 3 to Stage 2	**-**	**55**	**(471)**	**(416)**
Foreign exchange movement	**2,304**	**15**	**1,970**	**4,289**
Loss allowance as at 30 June 2022	**129,193**	**10,338**	**328,406**	**467,937**

45. FINANCIAL RISK MANAGEMENT (CONT'D)

(b) Credit risk (Cont'd)

(ii) Banking specific segment – BNI Madagascar SA ("BNI") (Cont'd)

Loans and advances to customers – Civil Servant

Loss allowance	Stage 1 12-month ECL	Stage 2 Lifetime ECL	Stage 3 Lifetime ECL	Total
	MUR '000	MUR '000	MUR '000	MUR '000
Loss allowance as at 1 July 2020	-	-	-	-
Transfer from Individual segment	10,344	666	21,095	32,105
New financial assets originated/ purchased/(derecognised)	40,391	1,347	10,834	52,572
Changes to PDs/LGDs/EADs	(36,908)	1,052	(17,619)	(53,475)
Transfers:				
Transfer from Stage 1 to Stage 2	(584)	235	-	(349)
Transfer from Stage 1 to Stage 3	(96)	-	1,286	1,190
Transfer from Stage 2 to Stage 1	5	(586)	-	(581)
Transfer from Stage 2 to Stage 3	-	(86)	573	487
Transfer from Stage 3 to Stage 1	6	-	(1,407)	(1,401)
Transfer from Stage 3 to Stage 2	-	28	(439)	(411)
Foreign exchange movement	40	8	44	92
Loss allowance as at 30 June 2021	13,198	2,664	14,367	30,229
New financial assets originated/ purchased/(derecognised)	**15,972**	**2,476**	**11,633**	**30,081**
Changes to PDs/LGDs/EADs	**(4,444)**	**(1,216)**	**(8,028)**	**(13,688)**
Transfers:				
Transfer from Stage 1 to Stage 2	**(85)**	**337**	**-**	**252**
Transfer from Stage 1 to Stage 3	**(35)**	**-**	**3,289**	**3,254**
Transfer from Stage 2 to Stage 1	**502**	**(1,277)**	**-**	**(775)**
Transfer from Stage 2 to Stage 3	**-**	**(64)**	**1,361**	**1,297**
Transfer from Stage 3 to Stage 1	**12**	**-**	**(318)**	**(306)**
Transfer from Stage 3 to Stage 2	**-**	**3**	**(81)**	**(78)**
Foreign exchange movement	**74**	**3**	**67**	**144**
Loss allowance as at 30 June 2022	**25,194**	**2,926**	**22,290**	**50,410**

45. FINANCIAL RISK MANAGEMENT (CONT'D)

(b) Credit risk (Cont'd)

(ii) Banking specific segment – BNI Madagascar SA ("BNI") (Cont'd)

Loans and advances to customers – Professional SME

Loss allowance	Stage 1 12-month ECL	Stage 2 Lifetime ECL	Stage 3 Lifetime ECL	Total
	MUR '000	MUR '000	MUR '000	MUR '000
Loss allowance as at 01 July 2020	2,908	4,499	246,655	254,062
New financial assets originated/ purchased/(derecognised)	1,956	1,212	19,523	22,691
Changes to PDs/LGDs/EADs	(2,187)	(4,410)	(13,649)	(20,246)
Transfers:				
Transfer from Stage 1 to Stage 2	(100)	125	-	25
Transfer from Stage 1 to Stage 3	(109)	-	2,291	2,182
Transfer from Stage 2 to Stage 1	2	(20)	-	(18)
Transfer from Stage 2 to Stage 3	-	(290)	3,129	2,839
Transfer from Stage 3 to Stage 1	3	-	(485)	(482)
Transfer from Stage 3 to Stage 2	-	300	(3,119)	(2,819)
Foreign exchange movement	8	4	773	785
Loss allowance as at 30 June 2021	2,481	1,420	255,118	259,019
New financial assets originated/ purchased/(derecognised)	**4,349**	**903**	**97,747**	**102,999**
Changes to PDs/LGDs/EADs	**(188)**	**(790)**	**(15,111)**	**(16,089)**
Transfers:				
Transfer from Stage 1 to Stage 2	**(375)**	**606**	**-**	**231**
Transfer from Stage 1 to Stage 3	**(1,021)**	**-**	**34,937**	**33,916**
Transfer from Stage 2 to Stage 1	**41**	**(270)**	**-**	**(229)**
Transfer from Stage 2 to Stage 3	**-**	**(277)**	**11,630**	**11,353**
Transfer from Stage 3 to Stage 1	**7**	**-**	**(994)**	**(987)**
Transfer from Stage 3 to Stage 2	**-**	**16**	**(1,997)**	**(1,981)**
Foreign exchange movement	**59**	**23**	**2,050**	**2,132**
Loss allowance as at 30 June 2022	**5,353**	**1,631**	**383,380**	**390,364**

45. FINANCIAL RISK MANAGEMENT (CONT'D)

(b) Credit risk (Cont'd)

(ii) Banking specific segment – BNI Madagascar SA ("BNI") (Cont'd)

Loans and advances to customers – Midcap

Loss allowance	Stage 1 12-month ECL	Stage 2 Lifetime ECL	Stage 3 Lifetime ECL	Total
	MUR '000	MUR '000	MUR '000	MUR '000
Loss allowance as at 01 July 2020	49,875	26,030	270,171	346,076
New financial assets originated/ purchased/(derecognised)	26,744	18,054	83,394	128,192
Changes to PDs/LGDs/EADs	(37,996)	(22,897)	(15,865)	(76,758)
Transfers:				
Transfer from Stage 1 to Stage 2	(669)	2,834	-	2,165
Transfer from Stage 1 to Stage 3	(158)	-	14,103	13,945
Transfer from Stage 2 to Stage 1	546	(1,567)	-	(1,021)
Transfer from Stage 2 to Stage 3	-	(922)	4,019	3,097
Transfer from Stage 3 to Stage 1	-	-	-	-
Transfer from Stage 3 to Stage 2	-	339	(4,079)	(3,740)
Foreign exchange movement	117	66	1,069	1,252
Loss allowance as at 30 June 2021	38,459	21,937	352,812	413,208
New financial assets originated/ purchased/(derecognised)	**28,761**	**24,835**	**101,504**	**155,100**
Changes to PDs/LGDs/EADs	**(25,247)**	**(16,183)**	**(75,829)**	**(117,259)**
Transfers:				
Transfer from Stage 1 to Stage 2	**(799)**	**2,598**	**-**	**1,799**
Transfer from Stage 1 to Stage 3	**(498)**	**-**	**26,185**	**25,687**
Transfer from Stage 2 to Stage 1	**44**	**(160)**	**-**	**(116)**
Transfer from Stage 2 to Stage 3	**-**	**(1,088)**	**19,103**	**18,015**
Transfer from Stage 3 to Stage 1	**30**	**-**	**(5,799)**	**(5,769)**
Transfer from Stage 3 to Stage 2	**-**	**1,886**	**(24,838)**	**(22,952)**
Foreign exchange movement	**157**	**288**	**2,212**	**2,657**
Loss allowance as at 30 June 2022	**40,907**	**34,113**	**395,350**	**470,370**

45. FINANCIAL RISK MANAGEMENT (CONT'D)

(b) Credit risk (Cont'd)

(ii) Banking specific segment – BNI Madagascar SA ("BNI") (Cont'd)

Loans and advances to customers – Institutional

Loss allowance	Stage 1 12-month ECL	Stage 2 Lifetime ECL	Stage 3 Lifetime ECL	Total
	MUR '000	MUR '000	MUR '000	MUR '000
Loss allowance as at 01 July 2020	6	1	3,333	3,340
New financial assets originated/purchased/(derecognised)	38	-	257	295
Changes to PDs/LGDs/EADs	1	(1)	(95)	(95)
Transfers:				
Transfer from Stage 1 to Stage 2	-	-	-	-
Transfer from Stage 1 to Stage 3	-	-	33	33
Transfer from Stage 2 to Stage 1	-	-	-	0
Transfer from Stage 2 to Stage 3	-	-	87	87
Transfer from Stage 3 to Stage 1	1	-	(727)	(726)
Transfer from Stage 3 to Stage 2	-	-	(7)	(7)
Foreign exchange movement	-	-	9	9
Loss allowance as at 30 June 2021	46	-	2,890	2,936
New financial assets originated/ purchased/(derecognised)	**5**	**6**	**3,792**	**3,803**
Changes to PDs/LGDs/EADs	**(32)**	**(4)**	**(57)**	**(93)**
Transfers:				
Transfer from Stage 1 to Stage 2	**(2)**	**10**	**-**	**8**
Transfer from Stage 1 to Stage 3	**-**	**-**	**11**	**11**
Transfer from Stage 2 to Stage 1	**-**	**-**	**-**	**-**
Transfer from Stage 2 to Stage 3	**-**	**-**	**-**	**-**
Transfer from Stage 3 to Stage 1	**-**	**-**	**(103)**	**(103)**
Transfer from Stage 3 to Stage 2	**-**	**1**	**(395)**	**(394)**
Foreign exchange movement	**1**	**4**	**19**	**24**
Loss allowance as at 30 June 2022	**18**	**17**	**6,157**	**6,192**

45. FINANCIAL RISK MANAGEMENT (CONT'D)

(b) Credit risk (Cont'd)

(ii) Banking specific segment – BNI Madagascar SA ("BNI") (Cont'd)

Loans and advances to customers – Corporate

Loss allowance	Stage 1 12-month ECL MUR '000	Stage 2 Lifetime ECL MUR '000	Stage 3 Lifetime ECL MUR '000	Total MUR '000
Loss allowance as at 01 July 2020	16,883	3,714	194,876	215,473
New financial assets originated/purchased/(derecognised)	10,328	7,959	80,609	98,896
Changes to PDs/LGDs/EADs	(8,519)	(1,916)	5,171	(5,264)
Transfers:				
Transfer from Stage 1 to Stage 2	(6)	89	-	83
Transfer from Stage 1 to Stage 3	-	-	540	540
Transfer from Stage 2 to Stage 1	129	(218)	-	(89)
Transfer from Stage 2 to Stage 3	-	(1,346)	10,770	9,424
Transfer from Stage 3 to Stage 1	-	-	(9)	(9)
Transfer from Stage 3 to Stage 2	-	-	(2)	(2)
Foreign exchange movement	57	25	887	969
Loss allowance as at 30 June 2021	18,872	8,307	292,842	320,021
New financial assets originated/purchased/(derecognised)	37,064	11,013	128,298	176,375
Changes to PDs/LGDs/EADs	7,374	(5,928)	(75,679)	(74,233)
Transfers:				
Transfer from Stage 1 to Stage 2	(335)	7,212	-	6,877
Transfer from Stage 1 to Stage 3	-	-	-	-
Transfer from Stage 2 to Stage 1	981	(1,051)	-	(70)
Transfer from Stage 2 to Stage 3	-	(285)	28,601	28,316
Transfer from Stage 3 to Stage 1	-	-	(467)	(467)
Transfer from Stage 3 to Stage 2	-	2	(32)	(30)
Foreign exchange movement	78	8	1,976	2,062
Loss allowance as at 30 June 2022	64,034	19,278	375,539	458,851

45. FINANCIAL RISK MANAGEMENT (CONT'D)

(b) Credit risk (Cont'd)

(ii) Banking specific segment – BNI Madagascar SA ("BNI") (Cont'd)

Gross loans and advances to customers – Individual

	Stage 1 MUR'000	Stage 2 MUR'000	Stage 3 MUR'000	Total MUR'000
Opening balance 1 July 2020	2,416,215	98,814	328,007	2,843,036
Transfer to Civil servant	(1,218,048)	(63,882)	(52,618)	(1,334,548)
New financial assets originated/purchased/(derecognised)	734,489	69,913	345,670	1,150,072
Transfer from Stage 1 to Stage 2	(21,747)	21,747	-	-
Transfer from Stage 1 to Stage 3	(28,266)	-	28,266	-
Transfer from Stage 2 to Stage 1	6,271	(6,271)	-	-
Transfer from Stage 2 to Stage 3	-	(7,542)	7,542	-
Transfer from Stage 3 to Stage 1	1,889	-	(1,889)	-
Transfer from Stage 3 to Stage 2	-	5,548	(5,548)	-
Foreign exchange movement	6,866	281	932	8,079
Gross carrying amount as at 30 June 2021	1,897,669	118,608	650,362	2,666,639
New financial assets originated/purchased/(derecognised)	358,564	(44,136)	18,401	332,829
Transfer from Stage 1 to Stage 2	(33,102)	33,102	-	-
Transfer from Stage 1 to Stage 3	(56,013)	-	56,013	-
Transfer from Stage 2 to Stage 1	27,700	(27,700)	-	-
Transfer from Stage 2 to Stage 3	-	(9,528)	9,528	-
Transfer from Stage 3 to Stage 1	1,069	-	(1,069)	-
Transfer from Stage 3 to Stage 2	-	413	(413)	-
Foreign exchange movement	14,015	2,318	2,262	18,595
Gross carrying amount as at 30 June 2022	2,209,902	73,077	735,084	3,018,063

45. FINANCIAL RISK MANAGEMENT (CONT'D)

(b) Credit risk (Cont'd)

(ii) Banking specific segment – BNI Madagascar SA ("BNI") (Cont'd)

Gross loans and advances to customers – Civil servant

	Stage 1 MUR'000	Stage 2 MUR'000	Stage 3 MUR'000	Total MUR'000
Opening balance 1 July 2020	-	-	-	-
New financial assets originated/purchased/(derecognised)	687,824	(10,579)	(3,395)	673,850
Transfer from Individual	1,259,901	50,400	24,247	1,334,548
Transfer from Stage 1 to Stage 2	(12,154)	12,154	-	-
Transfer from Stage 1 to Stage 3	(3,855)	-	3,855	-
Transfer from Stage 2 to Stage 1	692	(692)	-	-
Transfer from Stage 2 to Stage 3	-	(1,718)	1,718	-
Transfer from Stage 3 to Stage 1	950	-	(950)	-
Transfer from Stage 3 to Stage 2	-	1,228	(1,228)	-
Foreign exchange movement	5,842	233	18,746	24,821
Gross carrying amount as at 30 June 2021	1,939,200	51,026	42,993	2,033,219
New financial assets originated/purchased/(derecognised)	**686,761**	**88,635**	**16,034**	**791,430**
Transfer from Individual				
Transfer from Stage 1 to Stage 2	**(12,697)**	**12,697**	**-**	**-**
Transfer from Stage 1 to Stage 3	**(10,752)**	**-**	**10,752**	**-**
Transfer from Stage 2 to Stage 1	**53,533**	**(53,533)**	**-**	**-**
Transfer from Stage 2 to Stage 3	**-**	**(4,455)**	**4,455**	**-**
Transfer from Stage 3 to Stage 1	**1,313**	**-**	**(1,313)**	**-**
Transfer from Stage 3 to Stage 2	**-**	**146**	**(146)**	**-**
Foreign exchange movement	**11,579**	**179**	**288**	**12,046**
Gross carrying amount as at 30 June 2022	**2,668,937**	**94,695**	**73,063**	**2,836,695**

45. FINANCIAL RISK MANAGEMENT (CONT'D)

(b) Credit risk (Cont'd)

(ii) Banking specific segment – BNI Madagascar SA ("BNI") (Cont'd)

Gross loans and advances to customers - SME

	Stage 1 MUR'000	Stage 2 MUR'000	Stage 3 MUR'000	Total MUR'000
Opening balance 1 July 2020	18,865	220,669	317,517	557,051
New financial assets originated/purchased/(derecognised)	26,073	22,724	248,643	297,440
Transfer from Stage 1 to Stage 2	(12,054)	12,054	-	-
Transfer from Stage 1 to Stage 3	(14,817)	-	14,817	-
Transfer from Stage 2 to Stage 1	311	(311)	-	-
Transfer from Stage 2 to Stage 3	-	(7,374)	7,374	-
Transfer from Stage 3 to Stage 1	486	-	(486)	-
Transfer from Stage 3 to Stage 2	-	1,751	(1,751)	-
Foreign exchange movement	87	1,029	1,481	2,597
Gross carrying amount as at 30 June 2021	18,952	250,543	587,594	857,089
New financial assets originated/purchased/(derecognised)	**952,517**	**(143,163)**	**186,919**	**996,273**
Transfer from Stage 1 to Stage 2	**(36,333)**	**36,333**	**-**	**-**
Transfer from Stage 1 to Stage 3	**(85,512)**	**-**	**85,512**	**-**
Transfer from Stage 2 to Stage 1	**7,246**	**(7,246)**	**-**	**-**
Transfer from Stage 2 to Stage 3	**-**	**(28,064)**	**28,064**	**-**
Transfer from Stage 3 to Stage 1	**1,187**	**-**	**(1,187)**	**-**
Transfer from Stage 3 to Stage 2	**-**	**1,174**	**(1,174)**	**-**
Foreign exchange movement	**2,868**	**548**	**5,354**	**8,770**
Gross carrying amount as at 30 June 2022	**860,925**	**110,125**	**891,082**	**1,862,132**

45. FINANCIAL RISK MANAGEMENT (CONT'D)

(b) Credit risk (Cont'd)

(ii) Banking specific segment – BNI Madagascar SA ("BNI") (Cont'd)

Gross loans and advances to customers – Midcap

	Stage 1 MUR'000	Stage 2 MUR'000	Stage 3 MUR'000	Total MUR'000
Opening balance 1 July 2020	2,724,029	227,121	415,388	3,366,538
New financial assets originated/purchased/(derecognised)	177,078	160,186	437,947	775,211
Transfer from Stage 1 to Stage 2	(77,526)	77,526	-	-
Transfer from Stage 1 to Stage 3	(35,800)	-	35,800	-
Transfer from Stage 2 to Stage 1	33,696	(33,696)	-	-
Transfer from Stage 2 to Stage 3	-	(10,201)	10,201	-
Transfer from Stage 3 to Stage 1	13	-	(13)	-
Transfer from Stage 3 to Stage 2	-	7,018	(7,018)	-
Foreign exchange movement	10,184	850	1,553	12,587
Gross carrying amount as at 30 June 2021	2,831,674	428,804	893,858	4,154,336
New financial assets originated/purchased/(derecognised)	**29,942**	**217,045**	**34,663**	**281,650**
Transfer from Stage 1 to Stage 2	**(61,890)**	**61,890**	**-**	**-**
Transfer from Stage 1 to Stage 3	**(66,470)**	**-**	**66,470**	**-**
Transfer from Stage 2 to Stage 1	**2,423**	**(2,423)**	**-**	**-**
Transfer from Stage 2 to Stage 3	**-**	**(48,492)**	**48,492**	**-**
Transfer from Stage 3 to Stage 1	**2,138**	**-**	**(2,138)**	**-**
Transfer from Stage 3 to Stage 2	**-**	**43,760**	**(43,760)**	**-**
Foreign exchange movement	**8,272**	**2,499**	**5,996**	**16,767**
Gross carrying amount as at 30 June 2022	**2,746,089**	**703,083**	**1,003,581**	**4,452,753**

45. FINANCIAL RISK MANAGEMENT (CONT'D)

(b) Credit risk (Cont'd)

(ii) Banking specific segment – BNI Madagascar SA ("BNI") (Cont'd)

Gross loans and advances to customers – Institutional

	Stage 1 MUR'000	Stage 2 MUR'000	Stage 3 MUR'000	Total MUR'000
Opening balance 1 July 2020	538,877	1,490	5,128	545,495
New financial assets originated/purchased/(derecognised)	(449,592)	454	3,505	(445,633)
Transfer from Stage 1 to Stage 2	(2)	2	-	-
Transfer from Stage 1 to Stage 3	(84)	-	84	-
Transfer from Stage 2 to Stage 1	242	(242)	-	-
Transfer from Stage 2 to Stage 3	-	(221)	221	-
Transfer from Stage 3 to Stage 1	1,913	-	(1,913)	-
Transfer from Stage 3 to Stage 2	-	9	(9)	-
Foreign exchange movement	-	-	307	307
Gross carrying amount as at 30 June 2021	91,354	1,492	7,323	100,169
New financial assets originated/purchased/(derecognised)	**592,383**	**4,846**	**8,973**	**606,202**
Transfer from Stage 1 to Stage 2	**(9,943)**	**9,943**	**-**	**-**
Transfer from Stage 1 to Stage 3	**(29)**	**-**	**29**	**-**
Transfer from Stage 2 to Stage 1	**4**	**(4)**	**-**	**-**
Transfer from Stage 2 to Stage 3	**-**	**-**	**-**	**-**
Transfer from Stage 3 to Stage 1	**182**	**-**	**(182)**	**-**
Transfer from Stage 3 to Stage 2	**-**	**561**	**(561)**	**-**
Foreign exchange movement	**536**	**67**	**48**	**651**
Gross carrying amount as at 30 June 2022	**674,487**	**16,905**	**15,630**	**707,022**

45. FINANCIAL RISK MANAGEMENT (CONT'D)

(b) Credit risk (Cont'd)

(ii) Banking specific segment – BNI Madagascar SA ("BNI") (Cont'd)

Gross loans and advances to customers – Corporate

	Stage 1	Stage 2	Stage 3	Total
	MUR'000	MUR'000	MUR'000	MUR'000
Opening balance 1 July 2020	9,571,463	550,032	299,868	10,421,363
New financial assets originated/purchased/(derecognised)	(25,296)	611,214	412,433	998,351
Transfer from Stage 1 to Stage 2	(11,348)	11,348	-	-
Transfer from Stage 1 to Stage 3	(1,373)	-	1,373	-
Transfer from Stage 2 to Stage 1	64,719	(64,719)	-	-
Transfer from Stage 2 to Stage 3	-	(27,339)	27,339	-
Transfer from Stage 3 to Stage 1	4	-	(4)	-
Transfer from Stage 3 to Stage 2	-	4	(4)	-
Foreign exchange movement	-	4	(4)	-
Gross carrying amount as at 30 June 2021	9,630,024	1,082,370	742,004	11,454,398
New financial assets originated/purchased/(derecognised)	**1,956,974**	**(349,574)**	**133,338**	**1,740,738**
Transfer from Stage 1 to Stage 2	**(269,316)**	**269,316**	**-**	**-**
Transfer from Stage 2 to Stage 1	**184,624**	**(184,624)**	**-**	**-**
Transfer from Stage 2 to Stage 3	**-**	**(72,601)**	**72,601**	**-**
Transfer from Stage 3 to Stage 1	**3**	**-**	**(3)**	**-**
Transfer from Stage 3 to Stage 2	**-**	**91**	**(91)**	**-**
Foreign exchange movement	**45,664**	**2,875**	**5,443**	**53,982**
Gross carrying amount as at 30 June 2022	**11,547,973**	**747,853**	**953,292**	**13,249,118**

45. FINANCIAL RISK MANAGEMENT (CONT'D)

(b) Credit risk (Cont'd)

(ii) Banking specific segment – BNI Madagascar SA ("BNI") (Cont'd)

Concentrations of credit risk

The Bank monitors concentrations of credit risk by sector and by geographic location. An analysis of concentrations of credit risk from loans and advances, loan commitments, financial guarantees and investment securities is shown below:

	2022	2021
	MUR '000	MUR '000
(i) Concentration by sector		
Government	6,346,206	9,333,433
Bank	10,516,501	4,573,839
Retail - Mortgages	336,930	2,542,866
Retail - Unsecured	6,000,703	1,775,970
Corporate – Real estate	4,505,320	1,735,372
Corporate – Transport	-	663,357
Corporate – Others	20,043,256	17,986,303
Total	47,748,916	38,611,140
(ii) Concentration by location		
Africa	45,728,274	37,511,128
Europe	1,927,276	894,914
North America	13	8
Asia	93,353	205,090
Total	47,748,916	38,611,140

(c) Liquidity risk

Banking specific segment

Liquidity risk is the risk that the Bank is unable to meet its obligations when they fall due as a result of customer deposits being withdrawn, cash requirements from contractual commitments, or other cash outflows, such as corporate payments (tax, dividends, etc). Such outflows would deplete available cash resources for client lending, trading activities and investments. The Group`s liquidity management process is carried out by the group treasury team.

In extreme circumstances, lack of liquidity could potentially lead to the inability to fulfil regulatory requirement of the Obligatory Reserve ('OR'). This OR consists of maintaining a minimum monthly average balance (based on daily closing balances) in BNI's settlement account at the Central Bank of Madagascar. This threshold is determined for each current month as 13% of the last month total of individual and corporate customers' deposits in both MGA and foreign currency.

The risk that the Bank will be unable to do so is inherent in all banking operations and can be affected by a range of commercial-specific events – like aggressive campaigns on deposits collection by the competition, or aggressive self-campaign of loan distribution – or market-wide events like cycles related to the agricultural sector (Vanilla, clover, etc.) or seasonality.

Liquidity risk management process

The Bank's liquidity management process is carried out within the bank by the Finance department and governed by the monthly ALCO (Assets & Liabilities Committee) and quarterly ALM (Assets & Liabilities Management) committees.

Moreover, there is an operational daily process with a close-of-day report, issued by the dealing room, summarising the various updated indicators and proposing the next day actions and an updated view on the landing end-of-month situation. There is a daily calculation of the internal "availability ratio" which is the remaining amount of bills available for repo against the deposit base (same base used for OR calculation). The objective is to keep up with an availability ratio above 15% (vs the 13% of OR).

45. FINANCIAL RISK MANAGEMENT (CONT'D)

(b) Credit risk (Cont'd)

(ii) Banking specific segment – BNI Madagascar SA ("BNI") (Cont'd)

Points covered in the monthly meeting include but are not limited to the following:

- Review of market liquidity situation
- Evolution of the total balances above the total Obligatory Reserves
- Central Bank of Madagascar feedback and perspectives
- Central Bank of Madagascar feedback short-term and mid-term interventions (lending / borrowing) and issuances of treasury bills
- Review of treasury flows, commerce, loans and deposits projections and borrowings/placements decision Funding approach

The available sources of funding for the bank consist of:

- Cash and balance with central bank; (to be noted that the full balance is available as long as the monthly average balance exceeds the monthly level of Obligatory Reserves)
- Balances of nostro accounts;
- Interbank borrowings (overnight); the 4 primary banks, including BNI, are the main actors in the market
- Government bonds that are fully liquid and readily acceptable in repurchase agreements with central bank on an overnight basis;
- Central Bank of Madagascar liquidity injection at its discretion to adjust the market liquidity in case of market shortfall due to macro-economic seasonality;

The liquidity management objective is to fulfill the minimum required balance at the Central Bank of Madagascar account at any point in time to comply with the OR but also to avoid unproductive excess of balance. In case of projected shortage, The bank uses interbank borrowing with preferential rates (depending on banks' liquidity situation) and government treasury bills.

The utilisation of the funding sources is reported daily and reviewed in the ALCO.

The maturity gap report slots the inflows and outflows in different maturity buckets as defined by the Bank of Madagascar, according to the expected timing of cash flows.

45. FINANCIAL RISK MANAGEMENT (CONT'D)

(c) Liquidity risk (Cont'd)

(ii) Banking specific segment – BNI Madagascar SA ("BNI") (Cont'd)

The table below analyses the BNI's non-derivative financial liabilities into relevant maturity groupings based on the remaining period at the end of the reporting period to the contractual maturity date.

2022	< 3 months MUR '000	3-6 months MUR '000	6-12 months MUR '000	1-3 years MUR '000	> 3 years MUR '000	No-fixed maturity MUR '000	Total MUR '000
Assets							
Trade and other receivables	-	-	-	-	-	513,224	513,224
Loans and advances to customers	11,401,346	1,019,253	682,343	3,800,855	13,324,734	-	30,228,531
Other Financial Assets	-	-	-	-	-	15,175	15,175
Investment securities	-	-	2,260,371	4,817,488	-	-	7,077,859
Export documentary remittances	-	-	-	-	-	2,449,652	2,449,652
Cash and cash equivalents	9,795,573	-	-	-	-	-	9,795,573
	21,196,919	1,019,253	2,942,714	8,618,343	13,324,734	2,978,051	50,080,014
2022							
Liabilities							
Deposits from customers	30,176,399	948,938	698,607	260,345	16,388	1,100,243	33,200,920
Borrowings	3,528,600	-	-	-	759,577	-	4,288,177
Trade and other payables	-	-	-	-	-	2,294,885	2,294,885
Export documentary remittances	-	-	-	-	-	2,457,230	2,457,230
Lease liabilities	10,830	9,981	18,398	46,661	2,881	-	88,751
Provision for other liabilities and charges	44,414	-	-	-	-	20,729	65,143
	33,760,243	958,919	717,005	307,006	778,846	5,873,087	42,395,106
On balance sheet liquidity gap	(12,563,324)	60,334	2,220,719	8,314,987	12,547,228	(2,895,035)	7,684,909
Off balance sheet commitment	2,371,686	836,809	487,331	720,606	10,049	-	4,426,481
Net liquidity gap	(10,191,638)	897,143	2,708,050	9,035,593	12,557,277	(2,895,035)	12,111,390

45. FINANCIAL RISK MANAGEMENT (CONT'D)

(c) Liquidity risk (Cont'd)

(ii) Banking specific segment – BNI Madagascar SA ("BNI") (Cont'd)

2021	< 3 months MUR '000	3-6 months MUR '000	6-12 months MUR '000	1-3 years MUR '000	> 3 years MUR '000	No-fixed maturity MUR '000	Total MUR '000
Assets							
Trade and other receivables	522,821	-	-	-	-	-	522,821
Loans and advances to customers	8,829,707	2,593,391	1,638,802	5,341,617	1,869,414	-	20,272,931
Loans and advances to banks	-	-	-	-	-	-	-
Other Financial Assets	-	-	-	-	-	15,213	15,213
Investment securities	436,874	315,806	1,845,078	4,549,343	-	-	7,147,101
Export documentary remittances	1,632,865	-	-	-	-	-	1,632,865
Cash and cash equivalents	7,376,395	-	-	-	-	-	7,376,395
	18,798,662	2,909,197	3,483,880	9,890,960	1,869,414	15,213	36,967,326
2021							
Liabilities							
Deposits from customers	26,829,711	1,223,725	1,111,765	9,867	-	-	29,175,068
Borrowings	2,191,191	459,696	-	-	-	-	2,650,887
Trade and other payables	774,480	-	-	-	-	-	774,480
Export documentary remittances	1,633,936	-	-	-	-	-	1,633,936
Lease liabilities	6,619	12,103	15,975	52,308	4,647	-	91,652
Provision for other liabilities and charges	2,980	-	-	-	-	-	2,980
	31,438,917	1,695,524	1,127,740	62,175	4,647	-	34,329,003
On balance sheet liquidity gap	(12,640,255)	1,213,673	2,356,140	9,828,785	1,864,767	15,213	2,638,323
Off balance sheet commitment	3,250,802	-	1,158,175	244,022	-	-	4,652,999
Net liquidity gap	(9,389,453)	1,213,673	3,514,315	10,072,807	1,864,767	15,213	7,291,322

45. FINANCIAL RISK MANAGEMENT (CONT'D)

(c) Liquidity risk (Cont'd)

(ii) Banking specific segment – BNI Madagascar SA ("BNI") (Cont'd)

Non-banking specific segment

Prudent liquidity risk management implies maintaining sufficient cash and the availability of funding through an adequate amount of committed credit facilities. The Group and the Company aim at maintaining flexibility in funding by keeping reliable credit lines available. The Directors monitor rolling forecasts of the Group's liquidity reserve on the basis of expected cash flow.

The table below analyses the non-derivative financial liabilities of the Group; excluding BNI, and the Company into relevant maturity groupings based on the remaining period at the end of the reporting period to the contractual maturity date.

THE GROUP	Less than 3 months MUR '000	Between 3 months and 1 year MUR '000	Greater than 1 year MUR '000	Total MUR '000
At 30 June 2022				
Borrowings	4,152,383	3,266,664	10,655,745	18,074,792
Trade and other payables	4,162,597	1,878,877	-	6,041,474
Provision and other liabilities	36,551	3,102	3,768	43,421
Lease liabilities	112,333	248,522	6,487,673	6,848,528
	8,463,864	5,397,165	17,147,186	31,008,215

THE GROUP	Less than 3 months MUR '000	Between 3 months and 1 year MUR '000	Greater than 1 year MUR '000	Total MUR '000
At 30 June 2021				
Borrowings	2,656,135	2,388,596	16,570,659	21,615,390
Trade and other payables	3,416,891	903,036	13,830	4,333,757
Provision and other liabilities	35,693	-	62,421	98,114
Lease liabilities	93,788	284,377	7,596,541	7,974,706
	6,202,507	3,576,009	24,243,451	34,021,967

45. FINANCIAL RISK MANAGEMENT (CONT'D)

(c) Liquidity risk (Cont'd)

(ii) Banking specific segment – BNI Madagascar SA ("BNI") (Cont'd)

Non-banking specific segment (Cont'd)

THE COMPANY	Less than 3 months MUR '000	Between 3 months and 1 year MUR '000	Greater than 1 year MUR '000	Total MUR '000
At 30 June 2022				
Borrowings	35,627	479,767	3,517,985	4,033,379
Trade and other payables	34,267	-	-	34,267
	69,894	479,767	3,517,985	4,067,646

THE COMPANY	Less than 3 months MUR '000	Between 3 months and 1 year MUR '000	Greater than 1 year MUR '000	Total MUR '000
At 30 June 2021				
Borrowings	254,196	108,642	3,850,955	4,213,793
Trade and other payables	43,067	-	-	43,067
	297,263	108,642	3,850,955	4,256,860

45. FINANCIAL RISK MANAGEMENT (CONT'D)

(d) Market Risk

The Bank is exposed to market risks, which is the risk that the fair value or future cash flows of a financial fluctuate because of changes in market prices. Market risks arise from open positions in interest rates, curry and equity products, all of which are exposed to general and specific market movements and changes in the level of volatility of market rates or prices such as interest rates, foreign exchange rates and equity prices. The Bank separates exposure to market risk into either trading or non-trading portfolios.

The market risk arising from trading and non-trading activities are concentrated in the Bank's Treasury teams. Regular reports are submitted to the Management and the Board of Directors. The Board of Directors risk strategy, risk policies and prudential limits within which the operations are to be carried out.

The market risk arising from trading and non-trading activities are concentrated in the Bank's Treasury teams. Regular reports are submitted to the management and the Board of Directors. The Board approves the risk strategy, risk policies and prudential limits within which the operations are to be carried out. Compliance to the strategy, policies and prudential limits are monitored by the risk committee. Management monitors adherence to the limits daily, which facilitates the risk management.

Non-trading portfolios primarily arise from the interest rate management of the Bank's commercial banking assets and liabilities.

The cash surplus is placed either:

(i) Through a subscription of treasury bonds or on the local money market ('PMML') for local currency; or

(ii) On the international money market for foreign currencies with limits imposed on each category of equity/debt based on the level of risk inherent in the market. Once 90% of the limit is exceeded, the placement is flagged and appropriate measures are taken to allocate the cash surplus in an alternative way.

All foreign currencies are transacted on the foreign exchange interbank market while the purchases and sales are carried out in cash.

(i) Interest rate risk

Banking specific segment

Interest rate risk is the risk that the future cash flows of a financial instrument will fluctuate because of changes in market interest rates. Fair value interest rate risk is the risk that the value of a financial instrument will fluctuate because of changes in market interest rates. The bank takes on exposure to the effects of fluctuations in the prevailing levels of market interest rates on both its fair value and cash flow risks. Interest margins may increase as a result of such changes but may induce losses in the event that unexpected movements arise.

The Board sets limits on the level of mismatch of interest rate repricing and value at risk that may be undertaken, which is monitored daily by Group Treasury.

Treasury Bonds

The Treasury Bonds are held until maturity. They are valued at cost and bear a fixed interest rate. Following local applicable rules in Madagascar, the bonds are not revalued at market price at maturity.

Interbank placements are also at a fixed interest rate.

Bonds in foreign currencies are placed for a period between 3 to 6 months, at a pre-agreed rate.

45. FINANCIAL RISK MANAGEMENT (CONT'D)

(d) Market Risk (Cont'd)

(i) Interest rate risk (Cont'd)

Banking specific segment (Cont'd)

Clients transactions

The bank's prime lending rate is indexed on the Prime Lending Rate ('PLR') of the Central Bank of Madagascar, which is then used to determine the different applicable rates for credit lending. The Central Bank's Prime Lending Rate increased from 8.3% to 9% in May 2017 and was subsequently increased to 9.5% on 9 November 2017. BNI's Prime Lending Rate has remained unchanged at 14.9% since 2009. On 2 August 2022, the Central Bank revised its PLR to 8.9%. The Bank is currently assessing the impact of the change and has not yet taken any stance on whether to make any adjustments to its PLR.

Most of the bank's credit is at a variable rate indexed to the PLR, hence more or less fixed (unchanged since 2009). There is no correlation between the rates on the government bonds and the prime lending rate applied by BNI.

Deposits are remunerated at a fixed rate.

The bank manages the net interest margin rather than the actual rates on lending and deposits. The deposit rates and lending rates are discussed and agreed during monthly ALCO meetings, depending on the liquidity situation of the bank.

45. FINANCIAL RISK MANAGEMENT (CONT'D)

(d) Market Risk (Cont'd)

(i) Interest rate risk (Cont'd)

Banking specific segment (Cont'd)

The table below summarises BNI's non-trading book fair value exposure to interest rate risks. It includes financial instruments at carrying value categorised by the earlier of contractual maturity and date of repricing. The interest sensitivity of assets and liabilities for the Bank is as follows:

2022	< 3 months MUR '000	3-6 months MUR '000	6-12 months MUR '000	1-3 years MUR '000	> 3 years MUR '000	Non-Interest Bearing MUR '000	Total MUR '000
Assets							
Cash and cash equivalents	4,362,546	-	-	-	-	5,392,747	9,755,293
Investment securities	-	-	2,142,954	4,192,295	-	-	6,335,249
Loans and advances to customers	11,384,274	1,006,442	606,933	3,063,519	8,220,489	-	24,281,657
Other Financial Assets	-	-	-	-	-	15,175	15,175
Trade and other receivables	-	-	-	-	-	513,224	513,224
Export documentary remittances	-	-	-	-	-	2,449,652	2,449,652
	15,746,820	1,006,442	2,749,887	7,255,814	8,220,489	8,370,798	43,350,250
Liabilities							
Deposits from customers	(30,143,269)	(926,720)	(649,497)	(258,265)	(15,016)	(1,100,243)	(33,093,010)
Borrowings	(3,524,101)	-	-	-	(468,659)	-	(3,992,760)
Lease liabilities	(10,830)	(9,981)	(23,388)	(43,011)	(1,541)	-	(88,751)
Trade and other payables	-	-	-	-	-	(2,294,885)	(2,294,885)
Export documentary remittances	-	-	-	-	-	(2,457,230)	(2,457,230)
Provision for other liabilities and charges	-	-	-	-	-	(65,143)	(65,143)
	(33,678,200)	(936,701)	(672,885)	(301,276)	(485,216)	(5,917,501)	(41,991,779)
Off-Balance Sheet items attracting interest rate sensitivity	2,370,951	834,180	483,921	717,354	7,435	-	4,413,841
Interest rate sensitivity gap	(15,560,429)	903,921	2,560,923	7,671,892	7,742,708	2,453,297	5,772,312

45. FINANCIAL RISK MANAGEMENT (CONT'D)

(d) Market Risk (Cont'd)

(i) Interest rate risk (Cont'd)

Banking specific segment (Cont'd)

2021	< 3 months MUR '000	3-6 months MUR '000	6-12 months MUR '000	1-3 years MUR '000	> 3 years MUR '000	Non-Interest Bearing MUR '000	Total MUR '000
Assets							
Cash and cash equivalents	3,349,014	-	-	-	-	4,027,380	7,376,394
Investment securities	425,275	304,142	1,725,855	3,753,001	-	-	6,208,273
Loans and advances to customers	8,804,036	2,567,980	1,569,625	5,094,451	1,852,807	-	19,888,899
Loans and advances to banks	-	-	-	-	-	-	0
Other investments	-	-	-	-	-	15,213	15,213
Trade and other receivables	-	-	-	-	-	522,821	522,821
Export documentary remittances	-	-	-	-	-	1,632,865	1,632,865
	12,578,325	2,872,122	3,295,480	8,847,452	1,852,807	6,198,279	35,644,465
Liabilities							
Deposits from customers	(27,252,749)	(767,312)	(1,059,149)	(8,947)	(44)	-	(29,088,201)
Borrowings	(2,180,000)	(457,800)	-	-	-	-	(2,637,800)
Lease liabilities	(6,619)	(12,103)	(15,975)	(52,308)	(4,647)	-	(91,652)
Trade and other payables	-	-	-	-	-	(774,480)	(774,480)
Export documentary remittances	-	-	-	-	-	(1,633,936)	(1,633,936)
Provision for other liabilities and charges	-	-	-	-	-	(2,980)	(2,980)
	(29,439,368)	(1,237,215)	(1,075,124)	(61,255)	(4,691)	(2,411,396)	(34,229,049)
Off-Balance Sheet items attracting interest rate sensitivity	3,250,802	-	1,158,175	244,022	-	-	4,652,999
Interest rate sensitivity gap	(13,610,241)	1,634,907	3,378,531	9,030,219	1,848,116	3,786,883	6,068,415

45. FINANCIAL RISK MANAGEMENT (CONT'D)

(d) Market Risk (Cont'd)

(i) Interest rate risk (Cont'd)

Banking specific segment (Cont'd)

BNI is exposed to interest rate risk as it borrows funds at floating interest rates. BNI's policy is to minimise exposure to interest rate movements without exposing itself to speculation or undue risk. BNI manages its exposure to fluctuations in interest rates with a view to containing its net interest costs or securing its interest revenues through the purchase of certain hedging instruments such as interest rate caps, floors, swaps or forward rate agreements.

The current policy is to have a good mix of fixed and variable interest rate.

Non-banking specific segment

The Group is exposed to interest rate cash flow as it borrows at variable and fixed rates. This risk is somehow mitigated by non-current receivables and loans at call being granted at variable rates.

The risk for the group is managed by maintaining an appropriate mix between fixed and floating rate borrowings, and the use of interest rate swap contracts.

Had interest rate on financial liabilities changed by 1%; with all other variables held constant, the effect on profit or loss would be as follows for the Group, excluding BNI.

	THE GROUP		THE COMPANY	
	2022	2021	2022	2021
	MUR 'M	MUR 'M	MUR 'M	MUR 'M
1% increase in interest rate	(110)	(91)	(5)	(5)
1% decrease in interest rate	110	91	5	5

(ii) Currency risk

The Group operates internationally and is exposed to foreign exchange risk arising from various currency exposures.

The Group has a treasury department in place where foreign exchange exposure risk is monitored and managed. If necessary, management can also use financial instruments to hedge currency risk.

Banking specific segment

The Bank takes on exposure to the effects of fluctuations in the prevailing foreign currency exchange rates on its financial position and cash flows. The Central Bank has set the limit to 20% of Available Tier 1 Capital and the bank has set an internal threshold of 13%. The accounting department provides this information to the Trading Floor for effective monitoring of the limit.

Furthermore, an internal report is issued on a daily basis, and a monthly report is sent to the Central Bank on a monthly basis.

Control mechanisms in place in case of a substantial change in the exchange rate are listed below:

- If there is a strong appreciation of the Ariary, the Bank takes a short position for up to 13%.
- In the event of a strong depreciation, the Bank may go long and up to 13%.

The Bank is primarily exposed to EURO and USD.

45. FINANCIAL RISK MANAGEMENT (CONT'D)

(d) Market Risk (Cont'd)

(ii) Currency risk (Cont'd)

The banking segment's financial assets and financial liabilities are denominated in the following foreign currencies:

	USD	EURO	Others
	MUR '000	MUR '000	MUR '000
At June 30, 2022			
Assets			
Banking specific segment			
Investments in other financial assets	-	-	15,175
Investment securities	-	-	6,335,249
Loans and advances to customers	678,503	672,878	22,930,276
Trade and other receivables	-	-	513,224
Export documentary remittances	-	-	2,449,652
Cash and cash equivalents	2,127,713	2,196,034	5,431,529
Total Assets	2,806,216	2,868,912	37,675,105
Liabilities			
Banking specific segment			
Trade and other payables	-	-	2,294,885
Deposits from customers	2,295,854	2,434,439	28,362,717
Borrowings	224,101	468,659	3,300,000
Export documentary remittances	-	-	2,457,230
Provision for other liabilities and charges	-	-	65,143
Lease Liability	-	-	88,751
Total Liabilities	2,519,955	2,903,098	36,568,726
Net on balance sheet position	286,261	(34,186)	1,106,379

45. FINANCIAL RISK MANAGEMENT (CONT'D)

(d) Market Risk (Cont'd)

(ii) Currency risk (Cont'd)

	USD	EURO	Others
	MUR '000	MUR '000	MUR '000
At June 30, 2021			
Assets			
Banking specific segment			
Investments in other financial assets	-	597	14,616
Investment securities	-	-	6,205,851
Loans and advances to customers	495,403	534,478	18,838,232
Trade and other receivables	-	-	522,821
Export documentary remittances	-	-	1,632,865
Cash and cash equivalents	1,589,048	1,717,927	4,068,629
Total Assets	2,084,451	2,253,002	31,283,014
Liabilities			
Banking specific segment			
Trade and other payables	-	-	774,480
Deposits from customers	1,651,019	2,133,139	25,304,041
Borrowings	-	-	2,637,800
Export documentary remittances	-	-	1,633,936
Provision for other liabilities and charges	-	-	2,980
Lease Liability	-	-	91,651
Total Liabilities	1,651,019	2,133,139	30,444,889
Net on balance sheet position	433,432	119,863	838,125

45. FINANCIAL RISK MANAGEMENT (CONT'D)

(d) Market Risk (Cont'd)

(ii) Currency risk (Cont'd)

The following table details the banking segment's sensitivity to a 5% change in the rupee against the relevant foreign currencies:

	2022		2021	
	Profit or loss	Equity	Profit or loss	Equity
	MUR 'M	MUR 'M	MUR 'M	MUR 'M
MUR/USD exchange rate – increase 5%	(12)	(12)	(21)	(21)
MUR/USD exchange rate – decrease 5%	12	12	21	21
MUR/EUR exchange rate – increase 5%	(1)	(1)	(5)	(5)
MUR/EUR exchange rate – decrease 5%	1	1	5	5

Non-banking specific segment

The Group is primarily exposed to USD, EUR, GBP and ZAR. Foreign exchange risk arises from future commercial transactions.

Forward contracts are used to mitigate foreign currency risks.

The following table details the Group's exposure to foreign currencies as at 30 June 2022 and 30 June 2021:

	THE GROUP	
	2022	2021
	Profit or loss	Profit or loss
	MUR'M	MUR'M
USD	382	(541)
EUR	(6,492)	(2,871)
GBP	227	(298)
ZAR	767	532
Others	(2,073)	(284)

CIEL Limited, the Company, does not have significant exposure to foreign currencies. Therefore, no sensitivity analysis has been performed as the amount will be immaterial.

45. FINANCIAL RISK MANAGEMENT (CONT'D)

(d) Market Risk (Cont'd)

(ii) Currency risk (Cont'd)

The following table details the Group's; excluding BNI sensitivity to a 5% change in MUR against the relevant currencies.

	THE GROUP	
	2022	2021
	Profit or loss	Profit or loss
	MUR'M	MUR'M
MUR/USD exchange rate – increase 5%	16	27
MUR/USD exchange rate – decrease 5%	(16)	(27)
MUR/EUR exchange rate – increase 5%	269	144
MUR/EUR exchange rate – decrease 5%	(269)	(144)
MUR/GBP exchange rate – increase 5%	(9)	15
MUR/GBP exchange rate – decrease 5%	9	(15)
MUR/ZAR exchange rate – increase 5%	(32)	(27)
MUR/ZAR exchange rate – decrease 5%	32	27

The Company does not have significant exposure to foreign currencies. Therefore, no sensitivity analysis has been performed.

(iii) Price risk

The Group is exposed to equity securities price risk because of investments held by the Group and classified on the consolidated statement of financial position as financial assets and FVOCI.

To manage its price risk arising from investments in equity securities, the Group diversifies its portfolio.

Diversification of the portfolio is done in accordance with the limits set by the Group.

45. FINANCIAL RISK MANAGEMENT (CONT'D)

(d) Market Risk (Cont'd)

(iii) Price risk (Cont'd)

Sensitivity analysis

The table below summarises the impact of a change in the fair value of the investments in other financial assets on the Group's equity. The analysis is based on the assumption that the fair value had changed by 5%, with other factors remaining constant.

	THE GROUP		THE COMPANY	
	2022	2021	2022	2021
	MUR 'M	MUR 'M	MUR 'M	MUR 'M
Financial asset at fair value through OCI	23.3	23.0	1.3	1.3

(e) Fair value estimation

The fair value of financial instruments traded in active markets is based on quoted market prices at the end of the reporting period. A market is regarded as active if quoted prices are readily and regularly available from an exchange, dealer, broker, industry group, pricing service, or regulatory agency, and those prices represent actual and regularly occurring market transactions on an arm's length basis. The quoted market price used for financial assets held by the Company/Group is the current bid price. These instruments are included in level 1. Instruments included in level 1 comprise primarily quoted equity investments classified as trading securities or available-for-sale.

The fair value of financial instruments that are not traded in an active market is determined by using valuation techniques. These valuation techniques maximise the use of observable market data where it is available and rely as little as possible on specific estimates. If all significant inputs required to fair value an instrument are observable, the instrument is included in level 2.

If one or more of the significant inputs is not based on observable market data, the instrument is included in level 3.

Specific valuation techniques used to value financial instruments are disclosed in Note 2.

The nominal value less estimated credit adjustments of trade receivables and payables are assumed to approximate their fair values. The fair value of financial liabilities for disclosure purposes is estimated by discounting the future contractual cashflows at the current market interest rate that is available to the Group for similar financial instruments.

45. FINANCIAL RISK MANAGEMENT (CONT'D)

(e) Fair value estimation (Cont'd)

Categories of Financial Instruments

	Notes	THE GROUP	
		2022	2021
		MUR '000	MUR '000
Financial assets			
Amortised cost			
Investment in securities	24	6,335,249	6,208,017
Loan to banks	23	-	-
Loans and advances to customers	22	24,281,657	19,868,113
Non-current receivables	17	81,680	49,259
Trade and other receivables*	19	6,949,960	4,474,020
Cash and cash equivalent	20	12,701,634	9,931,175
		50,350,180	**40,530,584**
FVOCI			
Investments in other financial assets	15	465,083	459,852
		465,083	**459,852**
FVPL			
Derivative financial instruments	42	236,641	74,380
		236,641	**74,380**
Financial liabilities			
Amortised costs			
Borrowings	29	20,072,942	19,349,632
Lease liabilities	9(b)	3,464,263	3,265,163
Trade and other payables**	34	10,170,743	5,548,040
		33,707,948	28,162,835

For fair value hierarchy please refer to Note 42.

* Trade and other receivables exclude advance payments of **MUR 556M** (2021: MUR 556M), prepayments amounting to **MUR 247M** (2021: MUR 247M), taxes and grants of **MUR 319M** (2021: MUR 319M) and deposits of **MUR 16M** (2021: MUR 16M).

** Trade and other payables exclude client advances amounting to **MUR 330M** (2021: MUR 330M) and deposits from customers **MUR 159M** (2021: MUR 159M)..

45. FINANCIAL RISK MANAGEMENT (CONT'D)

(e) Fair value estimation (Cont'd)

Categories of Financial Instruments (Cont'd)

	Notes	THE COMPANY 2022 MUR '000	THE COMPANY 2021 MUR '000
Financial assets			
Amortised cost			
Trade and other receivables*	19	556,786	318,665
Cash and cash equivalent	20	12,325	6,797
		569,111	325,462
FVOCI			
Investments in other financial assets	15	25,806	25,011
Investments in subsidiary companies	12	23,510,805	18,243,634
Investments in Joint Ventures	13	162,466	89,908
Investments in associates	14	185,087	227,040
		23,884,164	18,585,593
Financial liabilities			
Amortised costs			
Borrowings	29	3,069,988	3,203,353
Trade and other payables**	34	18,842	14,313
		3,088,830	3,217,666

*Trade and other receivables exclude prepayments of **MUR 191,000** (2021: MUR 118,000).

Trade and other payables exclude accrued expenses of **MUR 15,423 (2021: MUR 28,154)

45. FINANCIAL RISK MANAGEMENT (CONT'D)

(f) Capital risk management

The Group's objective when managing capital are:

- to safeguard the Group's ability to continue as a going concern, so that it can continue to provide returns for shareholders and benefits for other stakeholders, and
- to provide an adequate return to shareholders.

The Group manages the capital structure and makes adjustments to it in light of changes in economic conditions and the risk characteristics of the underlying assets in order to maintain or adjust the capital structure, the Group may adjust the amount of dividends paid, issue new shares or sell assets.

The assets of the Company are financed through equity and borrowings.

Banking segment

The minimum required capital adequacy ratio in Madagascar is 8%. As at 30 June 2022 and 2021, the capital adequacy ratio of BNI was as follows:

		2022	2021
Capital base	MUR' M	2,766	2,282
Risk weighted	MUR' M	27,866	22,701
Capital adequacy ratio	%	10.00	10.05

Non-banking specific segment

The gearing ratio, excluding banking deposits, lease liabilities and cash and cash equivalents, as at 30 June 2022, is as follows:

	THE GROUP 2022 MUR' 000	THE GROUP 2021 MUR '000	THE COMPANY 2022 MUR' 000	THE COMPANY 2021 MUR '000
Total debt	16,080,182	16,711,832	3,069,988	3,203,353
Less Cash and cash equivalents	(2,946,342)	(2,554,780)	(12,325)	(6,798)
	13,133,840	14,157,052	3,057,663	3,196,555
Total equity	26,383,320	22,185,136	21,079,242	15,664,672
	39,517,160	36,342,188	24,136,905	18,861,227
Gearing	33%	39%	13%	17%