RISK
MANAGEMENT

NOTE ON RISKS

RISK MANAGEMENT SYSTEM

Risk categories

Credit risk

Credit risk, inherent in banking activity, is the risk of customers not repaying their obligations toward the Bank in full or within the allotted time, resulting in potential losses for the Bank. It is the broadest risk category and may be correlated with other risk categories.

Market risk

Market risk is the risk of a financial instrument losing value due to adverse fluctuations in market parameters, volatility or correlations between them. The parameters in question include exchange rates, interest rates and the prices of securities (stocks or bonds), commodities, derivatives or any other asset.

Overall liquidity and interest rate risk

Interest rate risk lies in an institution's financial position being vulnerable to an adverse change in interest rates.

Liquidity risk is the risk of the institution being unable to meet its cash or collateral obligations when they become due and at a reasonable cost.

Operational risk

Operational risk may be defined as the risk of loss due to inadequate or failing internal procedures, employee error, systems failure or external events. This definition includes legal risk but excludes strategic risk and reputational risk.

Country risk

Country risk comprises political risk as well as transfer risk. Political risk generally arises from action taken by a country's government such as nationalisation or expropriation or an independent event such as war or revolution, which may affect a customer's ability to honour its obligations.

Transfer risk may be defined as the risk of a resident customer being unable to acquire foreign currency in its country to be able to honour its overseas commitments.

Risk management organisation

Risk control bodies

• Group Risks Division

One of the Group Risks Division's responsibilities is to ensure that credit, market and operational risks are monitored and controlled. It is responsible for:

- Defining the Group's risk policy
- Defining and managing the credit approval and monitoring processes
- Implementing a risk control system relating to credit, market and operational risks.

The Group Risks Division comprises five units:

- Group Risk Management
- Loan Commitments Monitoring
- Loan Commitments Analysis
- Africa Counterparty Risk and Transversal Projects
- Group Permanent Control

Governance Bodies

• Group Risks Committee

BANK OF AFRICA Group's Risks Committee is a body reporting directly to its Board of Directors, whose remit extends to the direct and indirect subsidiaries included within the Group's scope of consolidation.

The Group Risks Committee assists the Board of Directors in matters such as strategy and risk management. In particular, it ensures that overall risk policy is adapted to the risk profile of the Bank and of the Group, the degree of risk aversion, its systemic importance, its size and its capital base.

• Audit and Internal Control Committee

BANK OF AFRICA Group's Audit and Internal Control Committee is a body reporting directly to its Board of Directors, whose remit extends to subsidiaries and other entities included within the Group's scope of consolidation.

The Group Audit and Internal Control Committee assists the Board of Directors in matters such as internal control, by ensuring that the existing internal control system is adapted to the Group's organisational structure and that the financial information intended for the Board of Directors and third parties is reliable and accurate. It also reviews the parent and consolidated financial statements prior to submitting them to the Board of Directors for approval.

• Executive Committee

The Group Executive Committee is responsible for translating and monitoring the Group's corporate strategy into operational initiatives and measures.

This Committee, which meets weekly, is also primarily responsible for steering the Bank's business, managing its internal control and risk management systems, monitoring HR and overseeing commercial, institutional and financial communications.

• Group Risk Steering and Management Committee

Reporting directly to BANK OF AFRICA Group's Executive Committee, the Group Risk Steering and Management Committee assists in managing and monitoring, at the operational level, the risk steering policy of the Group – BANK OF AFRICA S.A. and of its direct and indirect subsidiaries – and ensuring that the Group's operations comply with risk policies and the limits set.

The Committee ensures that the risk steering policy relating to credit, market, country and operational risks is efficient and that the Group's risk profile is consistent with its risk appetite in the context of the Group's risk management policy.

Credit Committees

• Senior Credit Committee

The Senior Credit Committee reviews and approves, on a weekly basis, credit applications from customers of the Bank and of the Group – European subsidiaries and the Shanghai branch office – within its delegated powers. Operating rules and powers differ depending on the level of risk incurred and the character of the credit portfolio segment in question – Business, Corporate or Personal & Professional Banking customers. It assesses and makes risk-taking decisions with regard to certain counterparties or counterparty groups across the banking portfolio for Moroccan, European and Asian operations and for individual counterparties based on thresholds predefined by each subsidiary.

• Group Extended Credit Committee (CCEG)

The CCEG is a decision-making body which rules on whether to decline or approve credit applications from BOA Group's Luxembourg subsidiaries, over and above the delegated powers and restrictions of the Head Office Extended Credit Committee (CCESC). The CCEG handles all applications which exceed the levels of delegation set at the CCESC by subsidiary group.

• Regional Credit Committee

The delegated powers enjoyed by the Regional Credit Committee (CCR) enable it to rule on counterparties at the regional level in accordance with the existing scheme of delegation. The Committee meets on a weekly basis. CCR meeting dates are decided by the Regional Director of each region and all members are informed accordingly.

• Loan Commitments Monitoring Committee (CSE)

As part of its portfolio monitoring remit, the Loan Commitments Monitoring Committee – head office CSE and regional CSE – meets on a monthly basis to follow up on the various initiatives undertaken to regularise, recover and clean-up accounts showing anomalies. The Committee also reviews customer loans that are eligible for downgrade and decides on what action to take.

Responsibility for tracking and monitoring the Loan Commitments situation is assumed by various bodies at four levels, three of which are head office based.

CREDIT RISK

The Bank's credit function operates in accordance with the general credit policy approved by the Group's senior management. The Group's requirements in terms of ethics, reporting lines, compliance with procedures and discipline in risk analysis are guiding principles.

This general policy is further broken down into specific policies and procedures depending on the character of specific operations or counterparties.

Credit Approval Process

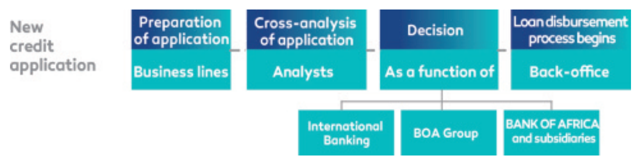
General principles

The credit approval process at every level of BANK OF AFRICA Group is guided by the troika principle and is based on the following principles:

- The credit approval process is the same for all types of credit application in that it ensures that the troika principle, in the very least, is met. Therefore, at least 3 people, including at least one person from the Risk function, must approve any credit application except in a number of predetermined exceptional cases.
- After prior cross-examination, decisions are taken jointly by the Risk and Commercial functions with regard to applications assigned by delegating powers at the local as well as head office levels as part of a multi-level pyramid structure. Should both functions fail to find a consensus, the application may be referred to a higher hierarchical level which will act as potential arbiter.
- An escalation procedure exists (L+1) in the event of any disagreement between the Risk and Commercial functions.

Bodies

The following diagram provides an overview of the credit approval process:



- Responsibility for putting together the credit application is incumbent on the Commercial function due to it having a commercial relationship with the customer
- A cross-examination of the credit application is carried out by credit analysts from the Risk function
- Decisions are taken jointly by the Risks and Commercial functions based on their respective levels of delegations of power
- Responsibility for setting up the loan rests with the back-office, a body that is independent of the Risk and Commercial functions.

A choice of decision-making channels

To make the notification process more straightforward, each credit application must adhere to the single decision principle.

Credit decisions are either taken by circulating the application or by holding a Credit Committee, either in person or digitally.

Delegation of powers

The credit decision-making process is based on a system of delegation of powers that derives from the powers granted by an entity's Board of Directors to employees or groups of employees, within the limits deemed appropriate.

Powers may be sub-delegated on the basis of the organisational structure, business volumes, products and risks.

Powers are delegated to employees on an *intuitu personae* basis as a function of their critical thinking capabilities, experience, personal and professional attributes and training.

Approval rules

Credit approval decisions are subject to review by the troika or Credit Committees depending on the approval levels.

The existing credit delegation system defines the number of decision levels as follows:

- An initial 'local' level within each subsidiary
- A 'hub' level – BOA Group and International Banking
- A 'head office' level within BANK OF AFRICA.

Powers may be sub-delegated to the local level within the entity on the basis of the organisational structure, business volumes, products and risks.

The contents of a credit application

Any application to set up a credit line must meet the product's eligibility criteria in accordance with each credit product's profile factsheet. Any credit decision is made on the basis of a standard credit application, the format of which is defined in conjunction with the relevant Commercial and Risk functions and in coordination with Group Risks.

A credit application is prepared for each counterparty or transaction to which the entity wishes to make a commitment or to which the entity has already made a commitment in the case of an annual review or a renewal on the basis of the documents provided by the customer as specified in the product checklists.

The documents checklist to be provided by the customer and the analysis framework are standard at Group level and are governed by the type of credit in question. The contents of a credit application must provide decision-makers with the necessary qualitative and quantitative information and analysis to enable them to make an informed credit decision.

The Commercial function responsible for preparing the credit application is also responsible for its contents.

The credit application remains the sole reference document required to take a credit decision. It must therefore be properly signed and stamped to be valid at the requisite level of the responsibility chain.

RATINGS SYSTEM

BANK OF AFRICA has an internal ratings system covering several customer segments.

Ratings system's guiding principles

One and only one rating

A rating is attributed to each customer. Each customer is treated as a Group third party code. The ratings process is carried out for each Group third party code so that a third party has one and only one rating. BANK OF AFRICA therefore ensures that one and only one rating is assigned to each assessed counterparty.

Integrity

In accordance with regulatory guidelines, ratings attributions and their periodic revisions must be carried out or approved by a party that does not directly benefit from the loan being approved. This concept of integrity when assigning a rating is a key aspect of the credit risk management charter, which seeks to encourage and ensure that the ratings process is truly independent.

Uniqueness

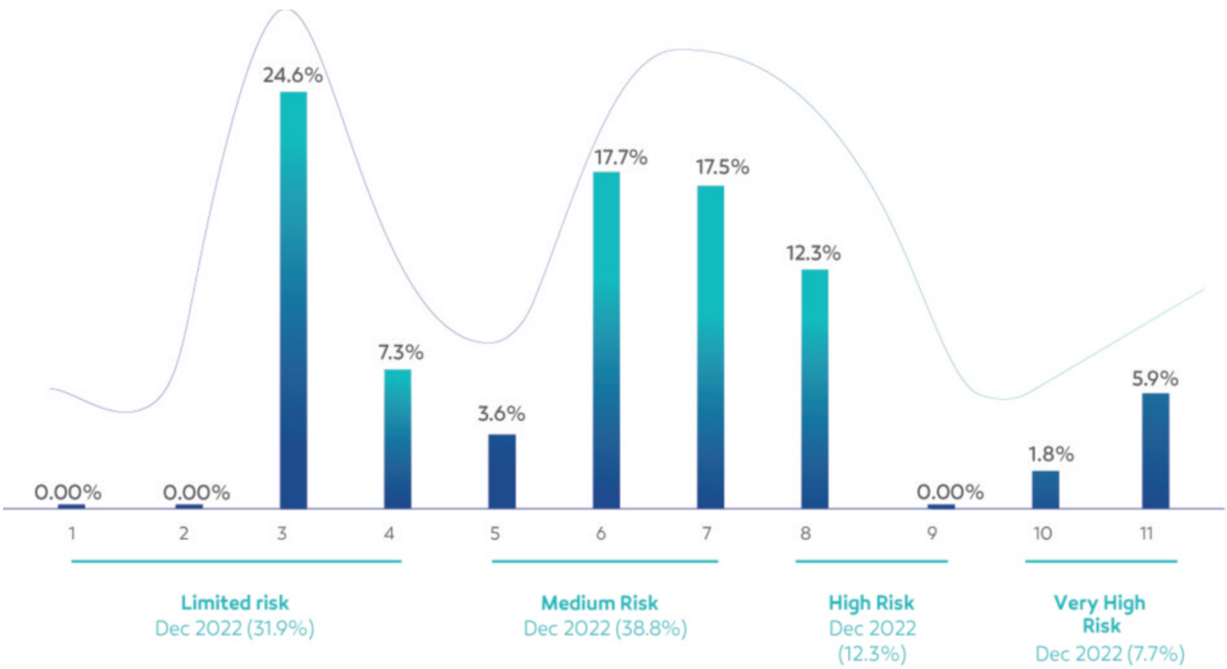
For each of the Bank's third parties, a specific code is assigned to each counter party type. Each third party is therefore rated using a template corresponding to a benchmark counterparty. As a result, for each third party, which has a particular and therefore unique counterparty type, the appraisal is carried out with the help of a single ratings template, but with characteristic data that are specific to the counterparty in question. BANK OF AFRICA is therefore able to ensure that the rating assigned to each counterparty is unique.

Ratings scale

Based on the ratings scale adopted by BANK OF AFRICA Group, the final counterparty rating ranges from 1 to 11:

	CATEGORY	CLASS	DEFINITION
Investment grade	**Limited Risk**	1	Extremely stable short- and medium-term; very stable long-term; solvent despite serious disruptions;
		2	Very stable short- and medium- term; stable long-term; sufficiently solvent despite persistently negative events;
		3	Solvent short- and medium- term despite significant difficulties; moderately negative developments can be withstood long-term;
		4	Very stable short-term; no expected change to threaten the loan in the coming year; sufficiently solid medium-term to be able to survive; long-term outlook still uncertain;
	Medium Risk	5	Stable short-term; no expected change to threaten the loan in the coming year; can only withstand sma ll negative developments medium-term;
		6	Ability limited to withstand unexpected negative developments;
		7	Ability very limited to withstand unexpected negative developments;
Sub-investment grade	**High Risk**	8	Ability limited to repay interest and principal on time; any change in internal and external economic and commercial conditions will make it difficult to fulfil obligations;
		9	Incapable of repaying interest and principal on time; fulfilling obligations dependent on favourable internal and external commercial and economic conditions;
	Very High risk	10	Very high risk of default; incapable of repaying interest and principal on time; partial default in repayment of interest and capital;
		11	Total default in repayment of interest and capital.

Breakdown of loan commitments by risk category at 31 December 2022:



Retail customer scoring system

The retail customer scoring system consists of statistically modelling defaulting retail customers and their risk behaviour.

Two types of score have been introduced, a behavioural score and a credit approval score.

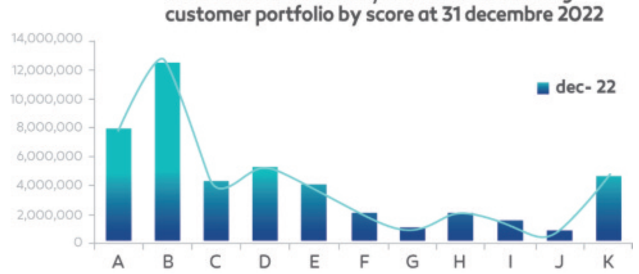
The behavioural score, for accounts already opened, is a dynamic risk assessment based on a customer's behaviour. Only customers that are known to the Bank may be assigned a behavioural score.

Each of the Bank's customers is assigned a rating from A to K which is updated on a monthly basis and on a daily basis in the event of any incident.

Classe	Description
A	Very low risk
A-	
B	Low risk
B-	
C	Average risk
C-	
D	Average- high risk
D-	
E	
E-	High risk
F	
F-	Very high risk
G	Major risk
G-	
H	Proven risk
H-	
I	Sub-standard
J	Doubtful
K	Impaired

Four separate behavioural scoring models have been introduced for specific market segments: personal banking customers, professional banking customers, Moroccans living abroad and small businesses.

Breakdown of Personal/Professional Banking customer portfolio by score at 31 decembre 2022



The credit approval score is a one-off rating that is assigned on opening a line of credit. New and existing customers are assigned a credit approval score.

A decision support system has been introduced for approving consumer loans.

CREDIT RISK CONTROL AND MONITORING PROCEDURE

The procedure for monitoring and steering credit risk provides second level control. It operates independently of monitoring carried out by the Commercial function on a daily basis.

The way in which this system is applied may be adapted to the specific character of each subsidiary in concertation with the Group Risks Division.

The checks carried out by the various entities reporting to the Group Risks Division are primarily aimed at ensuring that the advanced alert system is efficient both in terms of risk management and the Commercial function being able to anticipate potential risks so that the Bank's loan portfolio is managed appropriately. The Group Risks Division, through the Loan Commitments Permanent Monitoring Division, also ensures that the Commercial function is properly monitored and alerted to any conspicuous shortcomings.

The main operational responsibilities of the Group Risks Division, as part of its remit for monitoring and steering credit risks, are to:

- Ensure *a priori* checks
- Ensure *a posteriori* checks
- Identify and monitor the portfolio of loan commitments in accordance with a number of analytical criteria such as product type, maturity, beneficiary, business sector, branch, geographical zone etc.
- Set and monitor concentration limits
- Detect high-risk accounts and ensure that they are monitored
- Classify the non-performing loan portfolio according to regulatory criteria and recognise the appropriate provisions
- Conduct stress tests
- Produce and file regulatory reports and ensure internal steering.

A priori checks

A priori checks include all compliance checks carried out prior to a credit line's initial authorisation and use. These checks are carried out in addition to automated checks as well as checks carried out by the Commercial Division, Back-office and Legal Department etc.

These checks, which are implemented by entities reporting to the Group Risks Division, primarily relate to:

- Credit proposal data
- Compliance with the appropriate delegation level

- Legal documentation compliance
- Conditions and reservations expressed before initial use of funds or the facility
- Data entered into IT systems.

A posteriori checks

Like a priori checks, a posteriori checks are also carried out by the Group Risks Division.

The aim of these checks is to evaluate, mitigate and monitor credit risks for the portfolio as a whole rather than on an individual counterparty basis. Special attention is therefore paid to credit quality, to pre-empting and preventing abnormalities and risks as well as ensuring that the Commercial function is involved in controlling and monitoring risks.

Steering the loan commitments portfolio

The loan commitments portfolio of the Group and of its subsidiaries is steered using a number of risk indicators relating to credit approval risks as well as those arising during the loan's duration.

Multi-criteria analysis of the loan portfolio is a way of controlling risks retrospectively. This consists of identifying and tracking all loan commitments of the Group and of its subsidiaries based on a number of criteria such as products, maturities, customers, business groups, customer segments, counterparty ratings, asset categories (healthy and non-performing), business sectors, agencies, geographical areas, types of security etc. Multi-criteria analysis is a credit risk management tool.

The Credit Risks function is responsible for carrying out multi-criteria analysis of the loan portfolio. It is also responsible for reporting on credit risks, both within the Group to the Risk Committees and to senior management, and externally, to regulators.

System for detecting risks and anomalies

High-risk accounts and those showing anomalies represent a risk that is likely to subsequently increase and therefore generate a cost for the Bank. These consist of customer loan commitments that are still healthy, but which reveal:

- Either a visible deterioration in risk quality as measured against quantitative criteria (doubtful – in arrears, sub-standard, frozen – lack of any ledger entry and overdrawn, persistent overruns, etc.)

The main examples of this type include:

- Debit balances on demand accounts for which no actual credit entry has been recorded, covering at least the overdraft fees charged to these accounts as well as a significant part of the said debit balances
- Outstanding amortised loans that have not been settled within 30 days of their maturity date
- Outstanding loans that are repayable in a single repayment and that have not been honoured within 30 days of their maturity date
- Trade receivables discounted by the Bank and returned unpaid
- Persistent overruns, beyond one month, by comparison with the authorisations granted. To avoid incurring any operational risks, however, the entities will monitor, on a weekly basis, the authorised overruns of a certain level (at each local entity's discretion).
- Or a potential deterioration in risk quality as measured against qualitative criteria, which is likely to further deteriorate and therefore generate an expense for the Bank. These indicators may include incidents of a legal nature (garnishee orders, attachments, etc.) or account-related incidents (loss of income, overdrawn balances, authorisations or maturing guarantees, etc.) or negative information specific to a counterparty (non-performing loans at a competitor bank, deterioration in either its financial position, its credit quality or collateral), or incidents and disputes relating to the main shareholders (death, receivership or liquidation, etc.) or difficulties encountered in a counterparty's business sector etc.

Furthermore, other risk criteria relating to customer loans are rigorously monitored by the Bank's various entities including:

- Loan arrears committees
- Unsecured collateral (beyond expiry of the notary public's commitment period)
- Credit lines that remain unused for more than 6 months
- Funded projects revealing irregularities or difficulties that may impact the ability or likelihood of repayment
- Etc.

These criteria represent the minimal requirements imposed on the Bank as far as detection and monitoring is concerned as stipulated in Bank Al-Maghrib's Circular 19/G. In fact, the Risk and Commercial functions detect, monitor and submit for analysis and review by the Loan Commitments Monitoring Committee each customer loan that they consider sufficiently sensitive for it to be discussed.

As such, the Group Risk Management Department, via Permanent Monitoring of Commitments (PSPE), is the designated reference data source relating to risk criteria detection and has prerogatives relating to analysing and qualifying these data.

Concentration limits

Credit Risk Management has adopted a policy of analysing business line strategies from a risk perspective, especially in respect of new activities or product launches, by setting formal limits on these risks. Credit concentration risk incurred by BANK OF AFRICA Group can arise from exposure to:

- Individual counterparties
- Interest groups
- Counterparties belonging to the same industry or country.

Individual counterparties

The Group monitors individual concentrations at the parent and consolidated levels on a monthly basis. It closely monitors the commitments to its largest 10, 20 and 100 largest customers by commitment.

The following table shows commitments to the Bank's main debtors at the end of December 2022:

	December 2022	
	Amount disbursed	% of the total
Commitments to 10 largest customers	19 757	15.54%
Commitments to 20 largest customers	27 035	21.27%
Commitments to 100 largest customers	47 162	37.11%

Interest groups

Portfolio diversification by counterparty is monitored on a regular basis, particularly within the framework of the Group's individual concentration policies. Credit risk exposure to counterparties or groups of counterparties with relatively sizeable loans, amounting to more than 5% of the Bank's capital, are specifically monitored, both on an individual and consolidated basis.

Furthermore, controlling major risks also ensures that the aggregate risk incurred for each beneficiary does not exceed 20% of the Group's net consolidated capital, as required by Moroccan banking industry regulations. BANK OF AFRICA Group ensures that it complies with the concentration thresholds stipulated in Bank Al-Maghrib's directive.

Counterparties from the same business sector

The chosen methodology for setting sector limits is based on a statistical model which includes historical default rates and the number of counterparties by business sector and by risk category (rating).

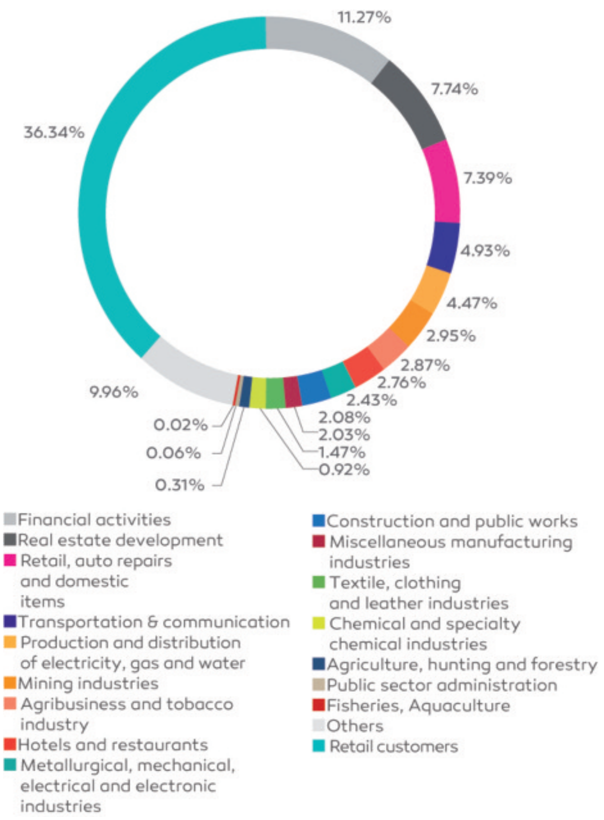
The goal is to model the probability of default by using appropriate econometric techniques and a dependent random variable whose value is derived from the number of default occurrences.

This procedure is based on the assumption that counterparties are independent and that the defaulting events are not correlated. The key concept underlying this methodology is the probability of default for a given counterparty. This probability is measured by using the rate of default of the business sector-risk category pair.

The model also enables the Bank to identify priority sectors for credit expansion in the context of the Bank's development plan as well as bad loan experience by sector. This approach, adopted by the Group Risks Division, is complemented by back-testing the model every six months.

Sector-specific limits are reviewed every six months in consultation with commercial units and the Bank's Economic Intelligence Centre which provide operational experience as well as estimates of macroeconomic and industry growth. The opinions of these entities help to challenge and provide further confirmation of the model's suitability in a given economic context.

Breakdown of the Group's loan commitments to customers by business sector at 31 December 2022:



Conducting stress tests

Every six months, BANK OF AFRICA Group conducts crisis simulations (stress tests) to assess the vulnerability of its credit portfolio in the event of an adverse event or deterioration of the quality of its counterparties.

The stress tests are conducted to assess the Bank's resilience in the face of unexpected, extreme events. Practically, they consist of simulating scenarios relating to the default of a certain percentage of the Group's counterparties. The ultimate objective is to measure the impact on provisioning and, as a result, on profitability and prudential capital.

The various scenarios are reviewed regularly and at least twice per year to ensure that they are relevant. This assessment is carried out based on the objectives set for conducting stress tests and whenever market conditions suggest any potentially adverse changes that are likely to seriously impact the Group's ability to withstand them.

The results of the stress tests are made known to the Group Steering and Risk Management Committee and the Group Risks Committee.

COUNTRY RISK

In a constantly changing world and within the constraints of the Group's overseas growth strategy and regulatory requirements, the country risk management system will enable BANK OF AFRICA Group to identify, measure and control its cross-border risks.

The country risk management methodology in place is based on the following points:

Country risk management policy

The country risk management policy aims to define a framework for overseeing all overseas business activities which generate risks for the Bank.

It establishes management standards and rules to harmonise regulatory requirements and in-company governance.

Country risk reporting

Monthly reporting by overseas subsidiaries and the parent company enables the Group Risk Management Department to assess each country's potential risk factors and helps to establish risk-mitigation strategies.

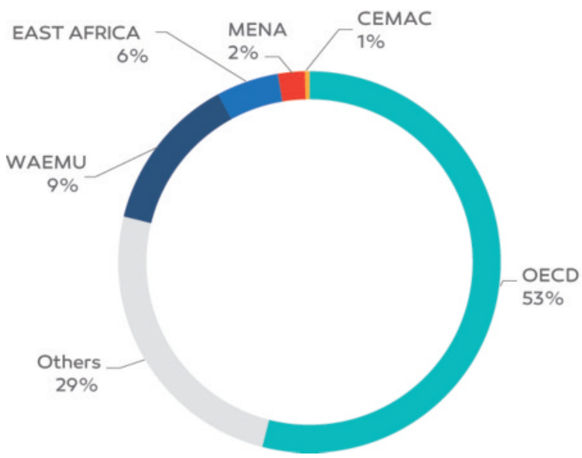
Identifying cross-border risks

BANK OF AFRICA Group is exposed to international risks through the various types of commitment entered into by the Bank with respect to a non-resident counterparty in dirhams or in foreign currencies.

These include:

- Loans to non-residents
- rade finance operations
- Foreign assets
- Market operations.

Breakdown of BOA Group SA's risk exposure by geographic region at 31/12/2022:



Consolidation

Country risk commitments are identified in such a way as to establish a position for the parent company, for each subsidiary and for the Group as a whole, offering an overview of the Group's overall exposure to cross-border risks.

Alerts system adopted

This system consists of monitoring regulatory, economic and financial factors by tracking all the prominent events occurring during the week. These items are disseminated to all interested parties in a Monthly Report.

An additional module monitors country risk trends and consists of specific research and in-company requests.

Ratings system

BANK OF AFRICA Group bases its country risk assessments on the ratings of external rating agencies such as Coface, S&P and Moody's.

Setting limits

When establishing country limits for loan commitments, BANK OF AFRICA Group takes into consideration:

- Each issuer's risk profile
- Quantitative and qualitative indicators
- A track record of consolidated exposures
- The extent to which the bank is capitalised.

These limits are constantly monitored and requests for overruns are assessed based on the existing levels of decision-making powers.

Stress tests

Stress tests are conducted on a regular basis to ensure that the Bank is able to withstand scenarios of extreme deterioration in country risk and to quantify the impact on the Bank's balance sheet and profitability.

Provisioning

A provision is recognised for country risk whenever the latter materialises, in the event of debt rescheduling, a political crisis or any other factor which may negatively impact the Bank's profitability.

An annual review is systematically carried out to reassess the country supposedly in default, which may potentially require the Group to recognise a provision.

RISK MANAGEMENT SYSTEM ROLL OUT AT OVERSEAS SUBSIDIARIES

In 2023, the Group Risks Division continued to focus its efforts on dealing with the pandemic. Adaptability was order of the day with the constantly evolving situation requiring close monitoring to be able to proactively adjust the risk management and control system to ensure that the Group remained resilient and that its risk profile was consistent with Group strategy.

Market risk management system

The roll-out of the market risk management system was completed at the Group's French-speaking subsidiaries. The roll-out is now being completed at the Group's remaining subsidiaries.

Country risk management system

A country risk management roll-out kit has been prepared and roll-out is expected to begin in 2023.

ICRP and ICAAP system

A roll-out kit has also been prepared in relation to the Internal Crisis Recovery Plan (ICRP) and Internal Capital Adequacy Assessment Process (ICAAP) systems and has been conveyed to BOA HOLDING.

MANAGEMENT OF GROUP RISK TRANSVERSAL PROJECTS

In 2022, work focused on a number of major cornerstone risk projects in line with BANK OF AFRICA Group's Risk Management Department strategy:

- The roll-out of the latest version of the Group Loan Commitments Database (BEG) was completed at BOA, Moroccan and European subsidiaries.
- Enhancements were made to the solution for calculating capital requirements and producing 'Risk Authority' regulatory declarations at BANK OF AFRICA.
- Work continued on a number of projects relating to the roll-out of software solutions for recovery of sub-standard and non-performing loans, IFRS9 and internal ratings.

Risk projects portfolio

The Group Risk Management Department's project portfolio consists of around twenty projects grouped together under 3 headings: Transformation Projects, Regulatory Projects and Transversal Projects.

LIQUIDITY AND INTEREST RATE RISK MANAGEMENT SYSTEM

BANK OF AFRICA has adopted a system for steering balance sheet risks such as liquidity and interest rate risks to enable it to continuously monitor their development as a function of financial market trends and their impact on the Bank's operations.

In order to maintain balance sheet stability over the medium to long term, the liquidity and interest rate risk management system is designed to:

- Ensure earnings stability when interest rates change, thereby maintaining net interest income and optimising the economic value of equity
- Ensure an adequate level of liquidity, thereby enabling the Bank to meet its obligations at any given time and protect it from any eventual crisis
- Ensure that the risk inherent in its foreign exchange positions does not have a negative impact on the Bank's profit margins
- Steer the Bank's strategy in such a way as to be able to take full advantage of any possible growth opportunities.

The Bank has established an ALCO committee to ensure that these targets are met. The main tasks of this committee are as follows:

- Set asset-liability policy
- Organise and steer asset-liability sub-committees
- Possess in-depth knowledge of the types of risk inherent in the Bank's operations and keep abreast of any changes in these risks as a function of financial market trends, risk management practices and the Bank's operations
- Review and approve procedures aimed at mitigating the risks inherent in the Bank's operations in terms of credit approval, investments, trading and other significant activities and products
- Master the reporting systems that measure and control the main risk sources on a daily basis
- Regularly review and approve risk limits as a function of any eventual change in the Group's strategy, approve new products and react to significant changes in market conditions
- Ensure that the different business lines are properly managed by HR and that the latter possesses an appropriate level of competence, experience and expertise in relation to the activities that they oversee.

Responsibilities of the different departments involved in interest rate and liquidity risk management

Every department within the Bank is involved in ensuring short- and medium-term balance sheet stability with the responsibilities of each party clearly defined in respect of interest rate and liquidity risk management.

In this regard, each of the Bank's entities will have its own budget and medium-term goals, approved by the Executive Committee. This enables the relevant bodies to monitor and control, in an orderly manner, implementation of the three-year plan whilst ensuring balance sheet stability and compliance with regulatory capital requirements.

The ALM department regularly monitors developments in the Bank's balance sheet structure by comparison with the plan and will signal any divergence at ALCO Committee meetings, attended by representatives of each entity, to ensure that any required corrective measures are taken.

Liquidity risk

The Bank's strategy in terms of liquidity risk management aims to ensure that its financing mix is adapted to its growth ambitions to enable it to successfully expand its operations in a stable manner.

Liquidity risk is the risk of the Bank being unable to fulfil its commitments in the event of unforeseen cash or collateral requirements by using its liquid assets.

Such an event may be due to reasons other than liquidity, for example, significant losses that result from defaulting counterparties or due to adverse changes in market conditions.

There are two major sources of liquidity risk:

- The institution's inability to raise the required funds to deal with unexpected situations in the short term, such as a massive deposit withdrawal or a maximum drawdown of off- balance sheet commitments
- A mismatch of assets and liabilities or the financing of medium- or long-term assets by short-term liabilities.

An acceptable liquidity level is a level that enables the Bank to finance asset growth and to fulfil its commitments when they are due, thereby protecting the Bank from any eventual crisis.

Two indicators are used to evaluate the Bank's liquidity profile:

- The Liquidity Coverage Ratio (LCR), which stood at 180% on a consolidated basis at 31 December 2022 and above the regulatory requirement of 100% set by Bank Al Maghrib
- The Bank's cumulative gap profile – this method of periodic or cumulative gaps in dirhams and in foreign currencies helps measure the level of liquidity risk incurred by the Bank over the short, medium and long term.

This method is used to estimate net refinancing needs over different time periods and to determine an appropriate hedging strategy.

Interest rate risk

Interest rate risk is the risk that future changes in interest rates have a negative impact on the Bank's profitability.

Changes in interest rates also impact the net present value of expected cash flows. The extent to which the economic value of assets and liabilities is impacted will depend on the sensitivity of the various components of the balance sheet to changes in interest rates.

Interest rate risk is measured by conducting simulation-based stress tests under a scenario in which interest rates are raised by 200 basis points as recommended by the Basel Committee.

The Bank's strategy in terms of interest rate risk management is aimed at ensuring earnings stability when interest rates change, thereby maintaining net interest income and optimising the economic value of equity.

Changes in interest rates may negatively impact net interest income and result in the Bank significantly undershooting its initial projections.

In order to counter such risks, the ALM department regularly steers the Bank's strategy by establishing rules for matching assets and liabilities by maturity and by defining a maximum tolerance departure threshold for net interest income by comparison with projected net banking income.

The method of periodic or cumulative gaps in dirhams and in foreign currencies helps measure the level of interest rate risk incurred by the Bank over the short, medium and long term.

This method is used to estimate asset-liability mismatches over different time periods and determine an appropriate hedging strategy.

Sensitivity in the value of the banking portfolio

Simulation-based stress tests are carried out to assess the impact from a change in interest rates on net interest income and on the economic value of equity.

At 31 December 2022, with the trading book portfolio excluded, the impact from a 200-basis points change in interest rates on net interest income was an estimated at MAD -0.023 billion or -0.52% of projected net interest income (and + MAD 0.018 billion for an interest rate variation of -200 basis points, i.e. +0.41% of projected net interest income).

The change in the economic value of shareholders' equity in the event of a 200-basis points shock was an estimated MAD 1.213 billion or 8.92% of regulatory capital.

MARKET RISK

Management of market risk at BANK OF AFRICA Group adheres to regulatory standards as defined by supervisory authorities in application of best international management practices as defined by the Basel Accords.

Market transactional risk is defined as the risk of incurring losses on balance sheet and off-balance sheet positions as a result of fluctuations in market prices. For BANK OF AFRICA Group, this type of risk encompasses:

- Interest rate risk
- Foreign currency risk
- Equity risk
- Credit risk for market transactions.

Financial instruments mapping

The following table shows products traded as part of BANK OF AFRICA Group's trading portfolio, mapped by risk factor:

Fixed income products	**I- Corporate and interbank loans/borrowings**
	Fixed rate (MAD and foreign currencies)
	Floating rate (MAD and foreign currencies)
	II-Treasury bonds and negotiable debt securities
	II-1 Sovereign bonds
	Fixed rate (MAD and foreign currencies)
	Floating rate (MAD and foreign currencies)
	II-2 Securities issued by credit institutions and companies
	Fixed rate (MAD and foreign currencies)
	Floating rate (MAD and foreign currencies)
	III-Securities lending/borrowing
	Securities lending/borrowing
	Repos/Reverse Repos
	IV-Interest rate derivatives (MAD and foreign currencies)
	Interest rate swaps
	Interest rate futures
	Forward rate agreements
Mutual funds	Money market mutual funds
	Bond mutual funds
	Equity mutual funds
	Composite mutual funds
Foreign exchange products	**I-Foreign exchange**
	FX spot
	FX forwards
	II-FX derivatives
	FX swaps
	FX options
Equity products	Equities
	Equity/index derivatives
Commodity products	Commodity futures
	Commodity options
	Commodity swaps

Market risk management policy

Governance

The main contributors to BANK OF AFRICA Group's market risk management policy are as follows:

- General Management, which implements market risk management strategies and policies approved by the Board of Directors
- The Group Risks Committee, which defines the Group's market risk management policy and approves any change in steering risks in market operations implemented by any of the Group's entities
- The Group Market Risks Committee, which ensures that the system for monitoring BANK OF AFRICA Group's market risks is effective and consistent with the policy for managing the Group's market risks
- The Group Market Risks unit which, as a separate department from the Group's front-office, centralises management of BANK OF AFRICA Group's market risk; this gives it maximum objectivity in steering market risks and in arbitrating between different market activities
- The Risk management units of BANK OF AFRICA Group entities which ensure first level control of market activities within their own entities and report back to Group Risk Management
- Internal Audit, which ensures implementation of the market risk management policy and rigorous compliance with procedures.

Description of market risk management system

BANK OF AFRICA Group's market risk management system is structured around three main aspects:

- Limits
- Risk indicators
- Capital requirements.

Limits

• Counterparty limits on market transactions

The approval process for counterparty limits and applications to overrun those limits in market transactions is governed within BANK OF AFRICA Group via a system of delegation of powers within a framework of procedures specific to each counterparty type.

Limits are set beforehand for market transactions in accordance with a scheme of delegation based on the troika principle.

• Market limits

In order to control market risk within BANK OF AFRICA Group and to diversify the trading portfolio, a set of market limits has been jointly adopted. These limits reflect the Group's risk profile and help it steer market risk effectively by arbitrating between the various market activities. BANK OF AFRICA Group's set of market limits comprises the following:

- Stop-loss limits
- Position limits
- VaR limits
- Trading limits.

Market limits are determined using VaR. The system for managing limits is dynamic and takes into account fluctuations in various risk factors as well as existing correlations so as to best appraise the extent to which the trading portfolio is diversified.

• Regulatory limits

In addition to limits adopted for internal purposes, BANK OF AFRICA Group also complies with regulatory limits defined by Bank Al-Maghrib including:

- Limits on foreign currency positions which should not exceed 10% of shareholders' equity

- Limits on the overall foreign exchange position which should not exceed 20% of shareholders' equity.

Risk indicators

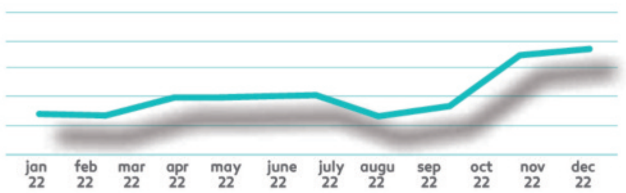
A variety of risk indicators, reflecting the level of exposure to market risk, are used by BANK OF AFRICA Group:

• Overall value-at-Risk (VaR) and by asset class

Value-at-Risk is a technique used to quantify overall market risk. It helps to quantify the risk incurred by calculating the potential loss over a given time horizon and the degree of probability.

Unlike traditional risk indicators, Value-at-Risk combines several risk factors and measures their interaction, thereby taking into consideration portfolio diversification.

BANK OF AFRICA Group calculates overall Value-at-Risk by asset class on a daily basis as well as carrying out back-testing.



• Stressed VaR

The Group has used different scenarios for calculating stressed VaR.

The Group has selected a number of events that have generated a high level of volatility in financial markets.

Examples of such events include:

- The bankruptcy of Lehman Brothers, which was unable to withstand the sub-prime crisis
- The USD 1,000 billion widening in the US budget deficit to support financial markets
- The Greek crisis and the threat of contagion spreading to the 'PIIGS' countries.

The reaction, however, by Morocco's financial markets to these events was limited. A number of scenarios were therefore applied to simulate global market conditions:

- Price action in the Casablanca stock market identical to that of the United States
- Price action in the dirham exchange rate identical to that of USD
- The knock-on effect of EURUSD volatility on EURMAD and USDMAD
- The knock-on effect of EURUSD volatility on EURMAD volatility and USDMAD volatility.
- Stress-testing by risk factor

BANK OF AFRICA Group conducts stress tests in order to evaluate the vulnerability of the Group's trading portfolio under extreme scenarios. Stress tests encompass every component of the trading portfolio by simulating all risk factors that might impact it.

The results of stress tests in terms of the impact from interest rate risk, foreign exchange risk and equity risk **on the trading portfolio are outlined below.**

a- Fixed income portfolio

1st scenario: **A 25 basis point parallel shift in the yield curve.**

This scenario would result in a MAD 60 billion impact on the P&L.

2nd scenario: **A 50 basis point parallel shift in the yield curve.**

This scenario would result in a MAD 120 billion impact on the P&L.

b- Equity portfolio

1st scenario: A 15% fall in the value of the equity portfolio.

This scenario would result in a MAD 9 billion impact on the P&L.

2nd scenario: A 25% fall in the value of the equity portfolio.

This scenario would result in a MAD 15 billion impact on the P&L.

c- Foreign exchange

1st scenario: **A 2.5% rise or fall in the value of the dirham.**

This scenario would result in a MAD 53 billion impact on the P&L.

2nd scenario: **A 5% rise or fall in the value of the dirham.**

This scenario would result in a MAD 107 billion impact on the P&L.

The results of the stress tests show that the Group has sufficient capital to withstand adverse stress scenarios and is able to comply with regulatory standards, even in crisis situations.

CAPITAL USE

BANK OF AFRICA Group uses Risk Authority software to calculate capital requirements under the standardised approach for market risks. This enables it to meet regulatory requirements in terms of reporting and monitor capital requirements regarding the Group's trading portfolio.

Consolidated capital requirements in respect of market risk at 31 December 2022 were as follows:

RISK TYPE	31 December 2022
Fixed income risk	621 287
Equity risk	94 728
FX risk	37 926
Total capital required in terms of market risk	753 941
Total market risk-weighted assets	9 424 263

METHOD FOR VALUING TRADING PORTFOLIO ITEMS

Dirham-denominated fixed income and money market instruments

Market values of fixed income and money market assets are calculated on Kondor+ using the dirham yield curve published by Bank Al-Maghrib and each transaction's characteristics.

Money Market and fixed income mutual funds

Mutual funds are valued on the basis of net asset value calculated on a daily or weekly basis.

Foreign currency-denominated fixed income products

Foreign currency-denominated fixed income products are valued on Kondor+ on the basis of the yield curves for the foreign currencies in question and each transaction's characteristics.

Foreign exchange options

Foreign exchange options are valued on the following basis: volatility curve, yield curves (EUR, MAD and USD) and foreign exchange crosses for the three currencies.

The foreign exchange options position is included in the overall foreign exchange position using the delta equivalent method.

Overall foreign exchange position

Branch-based foreign exchange transactions are executed at BANK OF AFRICA's fixing rate (non-negotiable rate).

A final statement of orders awaiting execution is transmitted to the Foreign Exchange Desk on day «N» which deals with it immediately. On «N+1» in the morning, the Middle Office receives a statement highlighting possible amendments to Network positions and updates on Kondor+.

Positive Fair Value of Contracts (guarantees)

Guarantees relating to market risks concern repo agreements. The latter are securities sold under repurchase agreements in order to raise funds.

OPERATIONAL RISK

Operational risk is defined as the risk of loss due to inadequate or failing internal procedures, employee error, systems failure or external events, which are liable to impact the smooth running of the business.

Operational risk management policy

Aim of managing operational risk

Operational risk management policy has three aims:

- Identify, analyse and evaluate operational risks
- Evaluate internal checks
- Monitor operational risks via alert indicators.

Operational risk is managed by adopting preventive and/or corrective action for the major risks identified.

The risk management system is regularly reviewed and monitored to ensure its ongoing improvement.

Classification

Operational risks or losses may be analysed, classified and ranked on the basis of the following factors: cause, effect (financial impact or otherwise), score, qualification, level of control and event type under Basel.

Links to other risk types (market risk/credit risk)

The management of operational risks is potentially linked to managing other risks (market risk/credit risk) at two levels:

- At a general level, analysis of the Bank's overall level of risk aversion (in terms of allocation of capital) must be carried out and "trans-risks" monitored
- At a specific level, a number of operational risks may be the cause of market risk or credit risk.

Operational risk management organisation

The framework governing operational risk management within BANK OF AFRICA Group is based on three main objectives:

- Define a target policy consistent with BANK OF AFRICA Group's business organisation, inspired by best practice
- Involve and empower business lines and subsidiaries in the day-to-day management of operational risk management
- Ensure that the audit-control and the operational risk management functions are kept separate.

Operational risk management at BANK OF AFRICA Group involves four major entities:

- The Group Operational Risk division at BANK OF AFRICA's head office
- BANK OF AFRICA's branch network
- BANK OF AFRICA's business divisions
- Subsidiaries.

Operational risks coordinators have been appointed by the aforementioned entities. These include:

- Operational Risk Correspondents (CRO)
- Operational Risk Coordinators (CORO)
- Operational Risk Liaison Officers (RRO).

The operational risk management's remit also extends to the Group's subsidiaries.

Governance of operational risk management

Governance of operational risks within BANK OF AFRICA Group is carried out by three operational risk Committees:

- Group Operational Risk Committee, an offshoot of the Group Risk Steering and Management Committee, the results of whose work are presented to the Group Risks Committee, which reports directly to the Board of Directors
- Operational Risk Monitoring Committee
- Operational Risk (Subsidiaries) Committee.

These committees are tasked with periodically:

- Reviewing changes in operational risk exposure and the environment for controlling such risks
- Identifying the main areas of risk in terms of activities and risk types
- Reviewing the state of progress of the preventive and corrective action plans drawn up with a view to dealing with and mitigating the major operational risks
- Reviewing the amount of capital to be allocated to operational risks, the cost of preventive action required and the cost of insurance.

Fundamental methodology principles

BANK OF AFRICA Group's operational risk management policy is underpinned by two strategic priorities:

- Reduce exposure to operational risks
- Optimise capital requirements relating to hedging operational risks.

The internal system for measuring operational risks is closely linked to the Group's day-to-day risk management process via:

- Risk events collection
- Mapping operational risks
- Key risk indicators.

The data produced form an integral part of these processes of monitoring and controlling the operational risk profile.

The senior management of the entity in question, General Management and the Board of Directors are regularly notified of operational risk exposure and any losses incurred. The management system is properly documented, ensuring compliance with a formalised set of checks and internal procedures and corrective measures in the event of non-compliance.

Internal and/or external auditors are invited to periodically review management processes and systems for measuring operational risk. These audits relate to units' activities and the independent operational risk management function.

Operational risk management at BANK OF AFRICA Group has been entirely automated by means of specialised MEGA HOPEX software. This software is now used to collect risk events and map operational risks and key risk indicators.

Operational risk control and mitigation

Several types of attitude may be envisaged to manage operational risks:

- Reinforce checks
- Hedge risks, especially via insurance contracts
- Avoid risks, in particular, by redeploying activities
- Draw up business continuity plans
- Closely monitor to ensure that risk limits or assigned thresholds are complied with.

BANK OF AFRICA Group has a very strong control policy, resulting in a significant reduction in operational risks. However, in terms of operational risk management, over and above its risk control policy, the Group is at liberty to find the best possible solution on a case-by-case basis, depending on the different types of risks described above.

Additionally, the Group has insurance policies to mitigate risks such as damage to office buildings, fraud, theft of valuable items and third-party liability cover etc.

Business Continuity Plan

The Business Continuity Plan is a response to the rising demand to minimise the impact in the event of any interruption to the Bank's operations. This is due to a growing reliance on the resources underpinning those operations, including human, IT or logistical resources.

The Plan comprises a set of measures and procedures aimed at ensuring that the Bank, under different crisis scenarios such as a major shock, is able to maintain essential services in fail-soft mode on a temporary basis, prior to the planned resumption of normal operations.

A targeted rescue organisation has been set up, along with alternative locations and backup systems. A specific project is underway at Group level, with disaster avoidance planning a priority.

The strategic transversal principles underpinning the Business Continuity Plan are as follows:

- BANK OF AFRICA has a moral responsibility to allow its customers access to the funds that they have entrusted to it. Any breach of this obligation in times of crisis may have an impact on public order.

This principle shall prevail above any other.

- BANK OF AFRICA must guarantee its commitments towards Morocco's interbank clearing system
- BANK OF AFRICA intends, as a priority, to comply with every one of the existing legal and contractual commitments entered into (relating to loans and other commitments) before it enters into any other commitment

- BANK OF AFRICA intends to maintain its international credibility by guaranteeing, as a priority, its commitments vis-à-vis foreign correspondents
- BANK OF AFRICA Group's existing customers take priority over all others that might benefit from its services
- Services are provided along the entire chain from front- office to back-office e.g. from branch level up until recognition in accounting terms.

ICAAP SYSEM

The Internal Capital Adequacy Assessment Process (ICAAP) is a process for assessing internal capital adequacy. Its purpose is to ensure that the Bank, on a continuous basis, has adequate internal capital in relation to its risk profile.

There are 3 main aspects to ICAAP:

- Determining and steering BANK OF AFRICA SA's risk appetite
- Identifying and steering risks
- As well as establishing a capital buffer aimed at mitigating Pillar 2 risks (interest rate risk, liquidity risk, concentration risk, compliance risk etc.)

The Internal Capital Adequacy Assessment Process (ICAAP) enables the Bank to define a capital structure, dynamic projections of solvency ratios and additional capital requirements.

To complement this process, the Bank carries out simulations and stress tests based on various criteria to assess the impact of risk factors on its resilience in terms of capital.

The introduction of a risk appetite framework has been achieved by incorporating two frames of reference:

- A risk appetite framework which defines the governance and organisational scheme and the process for defining and presenting the Bank's risk appetite
- A risk appetite statement which, consistent with the Group's development strategy, defines the risk appetite aspects which reflect the Bank's risk profile.

These aspects have been broken down into quantitative indicators with related thresholds.

The Risk Department ensures that the risk appetite system is properly aligned to the capital allocation process and limits system.

As far as the Group's main risks are concerned, the Group's risk appetite is governed by limits and alert thresholds. These indicators ensure that the Group is well-positioned to meet its target values and reach its goals in terms of profitability.

INTERNAL CRISIS RECOVERY PLAN (PRCI)

In response to new measures introduced under Bank Al Maghrib's Circular 4/W/2017 relating to the introduction of an Internal Crisis Recovery (PRCI), BANK OF AFRICA has taken the necessary steps to comply with this regulation.

The purpose of this prevention system is to assess BANK OF AFRICA Group's resilience, as a systemic institution, in the event of an extreme crisis and to identify the key drivers to restore its viability in terms of solvency, liquidity, asset quality and profitability. The various risks to which the group is exposed are also covered by this PRCI. These include credit risk, market risk, country risk, balance sheet risk, operational risk, cybercrime risk, non-compliance risk and reputational risk.

As a result, a taxonomy of the Group's risks has been developed in conjunction with the ICAAP system, with more robust internal stress tests based on extreme but plausible scenarios covering every category of risk to which the Group is exposed.

The work carried out has enabled the Group to draw up an inventory of which business entities are considered as significant, which operations are fundamental and which functions are critical in the event of a major crisis. Crisis scenarios have been drawn up and simulations and impact calculations carried out. In addition, a simulation of the COVID-19 pandemic has been factored in which assumes a pessimistic and extreme development of the pandemic, similar to the scenarios considered by the IMF.

As a result, for each estimated impact, recovery measures have been defined with objectives established to restore the Bank's financial viability via previously identifiable and quantifiable drivers. As such, the list of recovery measures has been reviewed, detailing the preparatory and prerequisite measures and the operational and financial risks to facilitate implementation of recovery measures as well as prioritising the defined measures.

BANK OF AFRICA Group has adopted a system of early warning indicators with the aim of identifying crises in a timely manner as well as defining a set of indicators for triggering recovery measures. The monitoring of these indicators is carried out as part of the Group's overall risk management and monitoring system.

This plan is updated annually to ensure that is complies with the relevant regulatory requirements. The aim is for it to become a genuine tool within the risk prevention process.

THE ENVIRONMENT, CLIMATE CHANGE AND SOCIAL RESPONSIBILITY

Underpinning BANK OF AFRICA Group's management framework relating to its undertakings regarding the environment, climate change and social responsibility is a set of values and an underlying commitment to respecting human rights and the environment. This framework has been adopted by each of the Group's banking and banking-related subsidiaries. It should also be noted that this framework applies to all financial products and services offered by the Bank.

As a result, BANK OF AFRICA Group factors sustainable development considerations and goals into its commercial approach and manages the environmental, climate- related and social risks associated with its commercial commitments.

Risks arising from environmental, climate-related and social (ECS) factors are inherent in any financial transaction. They translate into financial, legal, collateral-related or reputational impacts on the Bank.

The ECS risk identification, measurement and internal analysis systems are now tied in with the day-to-day operational risk management process.

CAPITAL ADEQUACY

BANK OF AFRICA Group has opted for the standardised approach to calculating risk-weighted assets as prescribed by Bank Al-Maghrib circulars, requiring banks to have a Tier 1 capital ratio of 9% and a solvency ratio of 12% at both the parent company and consolidated levels.

These thresholds calculated for BANK OF AFRICA Group comply with Bank Al- Maghrib's regulatory requirements.

COMPOSITION OF SHARE CAPITAL AND CAPITAL ADEQUACY

Main characteristics of items constituting shareholders' equity

BANK OF AFRICA's share capital stands at MAD 2,087,698,270 made up of 208,769,827 ordinary shares, each with a nominal value of 10 dirhams. The shares are fully paid-up. Each ordinary share entitles the holder to one voting right.

At 31 December 2022, fixed maturity subordinated debt stood at almost MAD 7.4 billion.

Measuring capital adequacy

BANK OF AFRICA Group has opted for the standardised approach to calculating risk-weighted assets as prescribed by Bank Al-Maghrib (BAM) circulars.

Since 30 June 2014, capital adequacy ratios have been calculated in accordance with Basel III regulatory standards as defined by BAM.

The method for calculating capital was reviewed in the light of these new regulations and temporary measures have been adopted for a period until 2019.

The circulars governing these declarations are as follows:

- Circular No. 26/G/2006 relating to calculating capital requirements based on the standardised approach for hedging credit institutions' credit, market and operational risks
- Circular No. 8/G/2010 relating to calculating capital requirements based on internal approaches for hedging credit institutions' credit, market and operational risks
- Circular No. 14/G/13 relating to capital requirements for credit institutions.

Composition of capital and capital adequacy

Tier 1 capital	24 664 882
Items to be included in Tier 1 capital	28 102 130
Share Capital	2 087 698
Consolidated reserves, including premiums related to share capital and not included in hidden reserves	19 881 633
Retained earnings	12 766
Net income for the previous period	2 304 075
Minority interests	3 815 958
Items to be deducted from Tier 1 capital	3 437 247
Goodwill	1 032 114
Other adjustments to CET1	1 502 071
Non-current assets	873 671
Other deductions	29 390
Additional core capital	2 500 000
Perpetual subordinated debt	2 500 000
Tier 2 capital	6 994 262
Perpetual subordinated debt	6 126 684
Revaluation differences	675 932
Hidden reserves	191 646
Total	34 159 144

Capital Requirements by Risk Type	December 2022
Risk-weighted credit risks	247 753 270
Risk-weighted market risks	9 424 268
Risk-weighted operational assets	26 412 784
Total risk-weighted assets	283 590 322
Tier 1 Capital	27 164 882
Tier 1 Capital ratio	9.6%
Total admissible capital	34 159 144
Capital adequacy ratio	12.0%

18-month forward-looking ratios:

Parent company	Dec 22	Jun 23	Dec 23	Jun 24
Regulatory Capital	13 960	13 766	13 572	14 116
Tier 1 Capital	16 460	17 266	17 072	18 616
Tier 2 Capital	22 390	22 645	21 902	22 932
Risk-weighted assets	147 909	150 911	153 384	156 415
CET1 Ratio	9.4%	9.1%	8.8%	9.0%
Tier 1 Capital Ratio	11.1%	11.4%	11.1%	11.9%
Capital Adequacy Ratio	15.1%	15.0%	14.3%	14.7%

Consolidated	Dec 22	Jun 23	Dec 23	Jun 24
Regulatory Capital	24 665	26 219	27 269	29 417
Tier 1 Capital	27 165	29 719	30 769	33 917
Tier 2 Capital	34 159	36 164	36 663	39 298
Risk-weighted assets	283 583	291 085	298 042	305 651
CET1 Ratio	8.7%	9.0%	9.1%	9.6%
Tier 1 Capital Ratio	9.6%	10.2%	10.3%	11.1%
Capital Adequacy Ratio	12.0%	12.4%	12.3%	12.9%