

# Risk Management

## Risk governance at Macquarie

### Role of the Board

The role of the Board is to promote the long-term interests of Macquarie, taking into account Macquarie's specific and broader responsibilities to its shareholders, funders, clients, staff and the communities in which it operates. In accomplishing its role with respect to risk management, among the Board's key responsibilities are oversight of management's operation of Macquarie's risk management framework, approving risk appetite and the risk management strategy, engagement with key regulators and forming a view of risk culture.

### Role of Management

The Group Heads of the Operating and Central Service Groups are responsible for the implementation of the risk management framework in their Groups. They are required semi-annually to attest that key risks have been identified and are adequately controlled in their Groups. These management representations support the sign-off of the half-year and full-year financial statements.

### Three lines of defence

Macquarie's approach to risk management adopts the 'three lines of defence' model, which sets risk ownership responsibilities functionally independent from oversight and assurance:

- primary responsibility for day-to-day risk management lies with the business. The risk owner is the first line of defence. All staff throughout Macquarie are expected to manage risks in accordance with the risk management framework
- the Risk Management Group (RMG) forms the second line of defence and provides independent and objective review and challenge, oversight, monitoring and reporting in relation to Macquarie's material risks
- Internal Audit, as the third line, provides independent and objective risk-based assurance on the compliance with, and effectiveness of, Macquarie's financial and risk management framework.

## Risk management framework

Macquarie's risk management framework is the totality of systems, structures, policies, processes and people within Macquarie that identify, measure, evaluate, monitor, report and control or mitigate all internal and external sources of material risk. Macquarie maintains a single risk management framework that is applied appropriately throughout the Operating and Central Service Groups.

In determining those risks that are material to Macquarie, we assess the potential for a risk to affect our earnings resilience and financial strength across market cycles, our ability to meet regulatory obligations, our stakeholders, and our reputation.

Macquarie's material risks include asset, conduct, country, credit, environmental and social, equity, financial crime, legal, liquidity, market, operational, regulatory and compliance, strategic, tax, technology and cyber, and work health and safety risks.



Details about the risks we manage are available at [macquarie.com/risk-management](https://www.macquarie.com/risk-management)



Details on Environmental and Social risks, and Work Health and Safety risks, are set out in the [ESG section](#) of this Annual Report.

## Key components

### Risk management principles

Macquarie's approach to risk management is based on stable and robust core risk management principles. These are:

- **ownership of risk at the business level:** Group Heads are responsible for ownership of material risks that arise in, or because of, their business' operations, including identification, measurement, evaluation, monitoring, control and mitigation of these risks. Before making decisions, clear analysis of the risks is sought to ensure those decisions are consistent with the risk appetite and strategy of Macquarie
- **understanding worst-case outcomes:** Macquarie's risk management approach is based on examining the consequences of worst-case outcomes and determining whether these are acceptable and within Macquarie's risk appetite. This approach is adopted for all material risk types and is often achieved by stress testing. Macquarie operates a number of sophisticated quantitative risk management processes, but the foundation of the approach is the informed consideration of both quantitative and qualitative inputs by experienced professionals
- **requirement for an independent sign-off by RMG:** Macquarie places significant importance on having a strong, independent risk management function to review, challenge and sign-off all material risk acceptance decisions. It is essential that RMG has the capability to do this effectively. RMG has invested in recruiting skilled professionals from a range of industries, including those with trading or advisory and capital markets experience. For all material proposals, RMG's opinion must be sought at an early stage in the decision-making process. The approval document submitted to Senior Management must include independent input from RMG on risk and return.

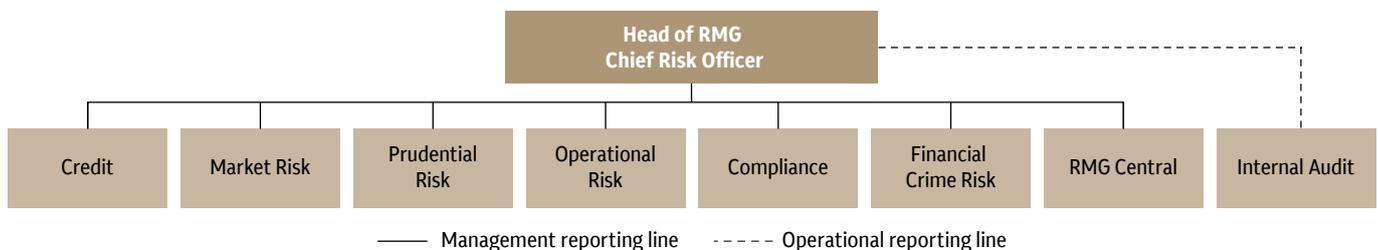
## Risk Management Group

RMG, which forms the second line of defence, is an independent and centralised function responsible for independent and objective review and challenge, oversight, monitoring and reporting in relation to Macquarie's material risks. RMG designs and oversees the implementation of the risk management framework. RMG is structured into specialist functional divisions (depicted below) and employs an integrated approach to risk analysis and management across risk classes. RMG's assessment and monitoring of risks involves a collaborative effort across the divisions to ensure a detailed analysis takes place both at the individual and aggregate risk level.

RMG's oversight of risk is based on five principles:

- **independence:** RMG is independent of Macquarie's Operating Groups and other Central Service Groups. The Head of RMG, as the CRO, reports directly to the CEO with a secondary reporting line to the BRiC. RMG approval is required for all material risk acceptance decisions
- **centralised risk management:** RMG's responsibility covers the whole of Macquarie. It assesses risks from a company-wide perspective and provides a consistent approach across Macquarie
- **approval of all new business activities:** the Operating and Central Service Groups may not undertake new businesses or activities, offer new products, enter new markets, or undertake significant projects without first consulting RMG. RMG reviews and assesses risks and sets limits. Where appropriate, these limits are approved by the Executive Committees and the Board
- **continuous assessment:** RMG continually reviews risks to account for changes in market circumstances and developments within Macquarie's business
- **frequent monitoring and reporting:** the risk profile of Macquarie with respect to all material risks is monitored by RMG on an ongoing basis. Centralised systems exist to allow RMG to monitor financial risks daily. For the valuation of all trading positions and deals, daily revaluation factors are sourced, where possible, from independent market sources. Reporting on all material risks is provided to Senior Management, the Board and relevant Board Committees.

## RMG structure



## Internal audit

The Internal Audit Division (IAD), as the third line, provides independent and objective risk-based assurance to the Board Audit Committee (BAC), Board, other relevant Board Committees and Senior Management on the compliance with, and effectiveness of, Macquarie's financial and risk management framework, including its governance, systems, structures, policies, processes and people for managing material risks. The Internal Audit Division assesses whether material risks have been properly identified by management and reported to the Board or relevant Board Committees, and whether key internal controls have been properly designed and are operating effectively and sustainably to mitigate those material risks.

The BAC has primary power of direction over the IAD and is accountable for reviewing the effectiveness of the IAD. The Head of Internal Audit reports functionally to the BAC and is primarily accountable to it. The Head of Internal Audit has unrestricted access to the BAC (and its Chair) and meets privately with the BAC members at least annually. The BAC monitors and reviews the performance, objectives, rating, remuneration and degree of independence of the Head of Internal Audit. The BAC also approves any appointment and removal of the Head of Internal Audit. The Head of Internal Audit reports operationally to the CRO for day-to-day management. For audit matters relating to RMG, the role of the CRO is substituted by the CEO.

# Risk Management

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## Risk appetite

Risk appetite is set by the Board as the degree and type of risk that Macquarie is prepared to accept in pursuit of its strategy, giving consideration to the interests of its stakeholders. Macquarie's Board-approved *Risk Appetite Statement (RAS)* defines the overarching risk-taking settings of Macquarie through risk appetite and risk tolerances.

As part of the Annual Strategy Review and Business Planning process, RMG undertakes an independent review of Macquarie's strategy and considers how risks identified could individually or in aggregate impact Macquarie's risk profile and risk appetite. Macquarie's strategy and the outcome of RMG's review together inform the annual review of Macquarie's risk appetite and tolerance settings.

## Stress testing

Stress testing is a key component of Macquarie's risk management framework and is integrated with Macquarie's strategy review and financial forecasting. Stress testing, including scenario analysis and sensitivity analysis, is a key tool that informs the calibration of Macquarie's risk tolerances; provides insights into the Annual Strategy Review and Business Planning process; and tests and informs whether Macquarie's strategy remains, and is forecast to remain, in line with its risk appetite.

## Policies

Policies are key tools for ensuring that risks taken are consistent with Macquarie's risk appetite. They are designed to set out the principles that govern decision-making across Macquarie.

## New product and business approval process

All new businesses, new products, major organisational projects, and significant changes to existing businesses, products, processes or systems which will expose Macquarie to new or significantly varied risks must be assessed against the applicable risk appetite and tolerances.

This formal process sets out the requirement for each Operating and Central Service Group to have a demonstrable robust change management process to ensure material risks are appropriately identified, assessed and within Macquarie's risk appetite as defined in the RAS. The Operating and Central Service Groups may not undertake the proposed activity without first consulting RMG. RMG reviews and assesses risk and sets limits. Where appropriate, these limits are approved by the Executive Committee and the Board.

RMG is also responsible for reviewing that all relevant internal approvals are obtained prior to commencement.

## Risk culture

A sound risk culture has been integral to Macquarie's risk management framework since inception. Macquarie sets, promotes, monitors and reflects on the effectiveness of our risk culture. All staff have a role in managing risk. Ownership of risk, including risk culture, is at the business level. The Board, assisted by the BRIC, is responsible for forming a view on Macquarie's risk culture and the extent to which it supports the ability of Macquarie to operate consistently within its risk appetite. The Board also identifies and monitors any necessary or desirable actions to change the risk culture.

Macquarie's approach to maintaining a sound risk culture is based on three components:

### Setting behavioural expectations

Senior Management, with oversight from the Board, set behavioural expectations. The way we fulfil Macquarie's purpose is defined by our principles of *What We Stand For*: Opportunity, Accountability and Integrity. Staff are made aware that these principles must form the basis of all behaviours and actions. These behavioural expectations are specified in the Board-approved *Code of Conduct*, which is actively promoted by Management and cascaded through the organisation.

### Leading and executing

Management implements behavioural expectations through:

- leadership actions and communication
- organisational governance
- incentives and consequence management
- organisational and individual capability.

### Monitoring, measuring and reporting

Macquarie monitors and measures its risk culture to gauge its effectiveness while promoting continuous improvement. Mechanisms include:

- reports incorporating behavioural indicators (such as policy, limit and training breaches) prepared by all Operating and Central Service Groups, including reports prepared by RMG, HR and Macquarie's Integrity Office, and escalated where relevant, in accordance with our governance framework. These include regular reports relating to risk culture which are provided to Senior Management, the Board and relevant Board Committees
- risk culture teams in both RMG Prudential Risk and IAD undertake a range of business level and thematic assessments of risk culture and behaviour.

These mechanisms facilitate a feedback loop of sharing good practice and lessons learnt to enable cultural alignment.

## Remuneration and consequence management

The Board considers that the effective alignment of remuneration with prudent risk-taking is fundamental to Macquarie's remuneration approach. Risk considerations are embedded throughout the remuneration process, including through the determination of individual profit share allocations, business group and company-wide profit share pools, as well as through the way in which remuneration is structured and delivered. Effective consequence management is a key component of Macquarie's risk culture. Macquarie aims to apply consequences for non-compliance in a timely manner, and as fairly and consistently as possible.



See the [Remuneration Report](#) for more details on Macquarie's remuneration framework and consequence management process

## Conduct risk

Macquarie defines conduct risk as the risk of behaviour, action or omission by individuals employed by, or on behalf of, Macquarie or taken collectively in representing Macquarie that may have a negative outcome for our clients, counterparties, the communities and markets in which we operate, our staff, or Macquarie.

Such behaviour, actions or omissions may include:

- breaches of laws or regulations
- disregard for Macquarie's principles of *What We Stand For* or the *Code of Conduct*
- negligence and/or a lack of reasonable care and diligence
- failure to escalate improper conduct
- inadequate product design and distribution.

Conduct risk can arise inadvertently or deliberately in any of Macquarie's Operating and Central Service Groups.

Macquarie's approach to conduct risk management is integrated in our risk management framework and is consistent with our three lines of defence model. Risk-taking must be consistent with Macquarie's principles of *What We Stand For* and the Board-approved *Code of Conduct*.

Macquarie has a range of controls and processes in place to identify and manage conduct risk, including:

- new and emerging conduct risks are identified through the annual strategy and business planning process
- conduct risks that may arise when Macquarie establishes a new business or product, or makes a significant change to an existing business, product, process or system are identified and assessed through the new business and product approval process
- independent monitoring and surveillance conducted by RMG, in addition to front line supervisory activities performed by the business
- the Risk and Control Self-Assessment requires businesses to identify and assess their key conduct risks
- supporting the efficient operation of markets through appropriate controls and monitoring
- where incidents occur, businesses investigate the underlying contributing behaviours and are responsible for recording all conduct related issues and incidents in Macquarie's Governance, Risk and Compliance system, and escalating within the set timeframes
- performance-based remuneration reflects an individual's performance, which is assessed against a range of financial and non-financial factors including approach to risk management and compliance
- an Integrity Office that is an independent point of contact for staff to safely raise concerns about misconduct, unethical behaviour or breaches of the *Code of Conduct*, and protects those who raise concerns under Macquarie's *Whistleblower Policy*
- a global Staff Hotline for staff who wish to speak up anonymously
- a Customer Advocate Office (ANZ only) to promote fair and reasonable customer complaint outcomes and to review and assist with determining escalated customer complaints.

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## Market and credit risk

### Year-end performance indicators

Macquarie monitors and measures a range of risks as outlined above in the risk management framework overview. The following graphs provide historical and current year information on key market and credit risks.

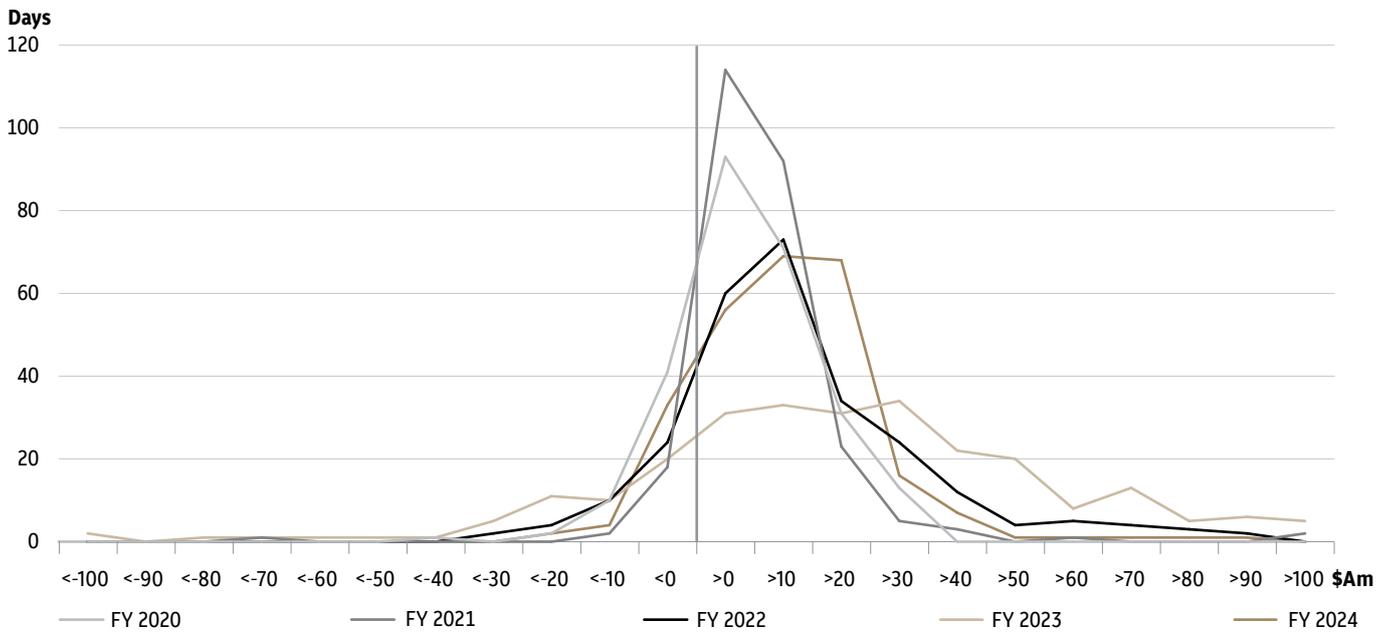
### Trading revenue

The effectiveness of Macquarie’s market risk management framework can be partially measured by Macquarie’s daily trading results. These are daily profit and loss results that are directly attributable to market-based activity from Macquarie’s trading desks.

Macquarie’s market risk activities continue to be based on earning income from client-facing businesses. The majority of trading income is derived from client activities rather than outright proprietary trading activity.

Macquarie’s trading results over time have shown consistent profits and low volatility. In FY2024, Macquarie made a net trading profit on 221 out of 260 trading days (FY2023 results: 208 out of 261 trading days).

### Daily trading profit and loss

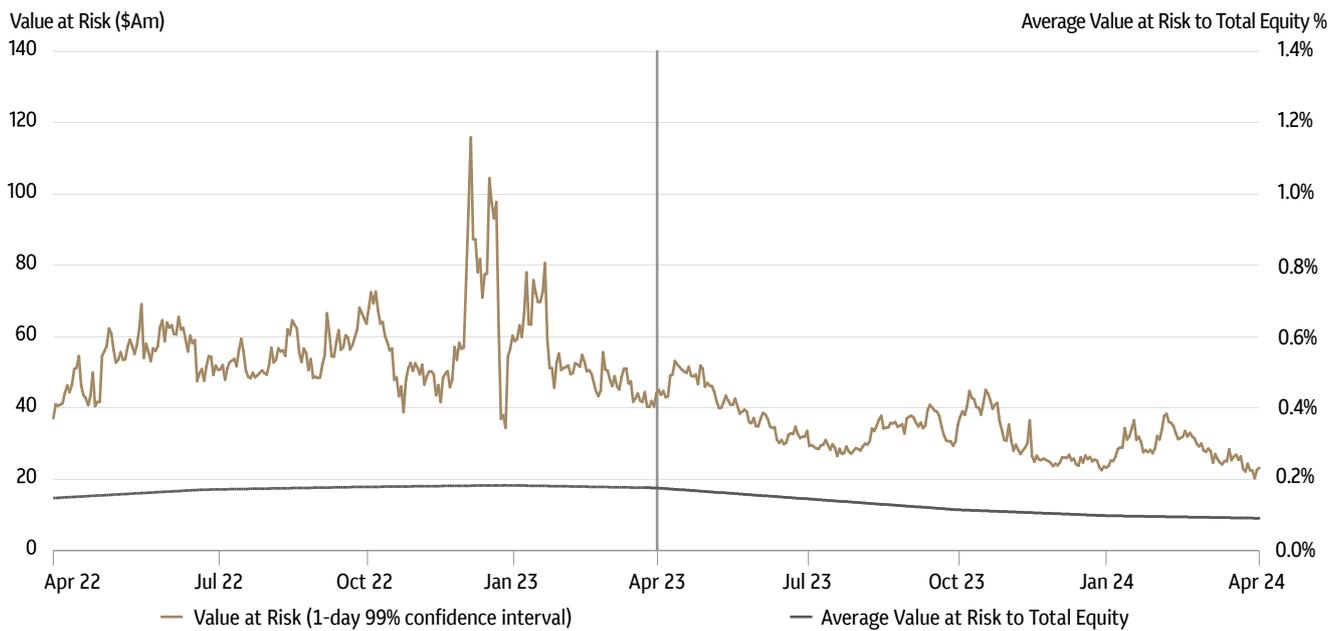


## Value at Risk (VaR)

VaR provides a statistically based summary of overall market risk in Macquarie. The magnitude of VaR reflects changes in positions as well as changes in market volatility, correlations and enhancements to the model. The integrity of the VaR model is regularly tested against daily profit and loss.

Macquarie's market risk decreased compared to the previous year, primarily driven by lower commodity exposure from gas and power as well as decreasing market volatility. VaR remains modest in comparison to capital and earnings, representing less than 0.2% of total equity.

## Aggregate VaR



# Risk Management

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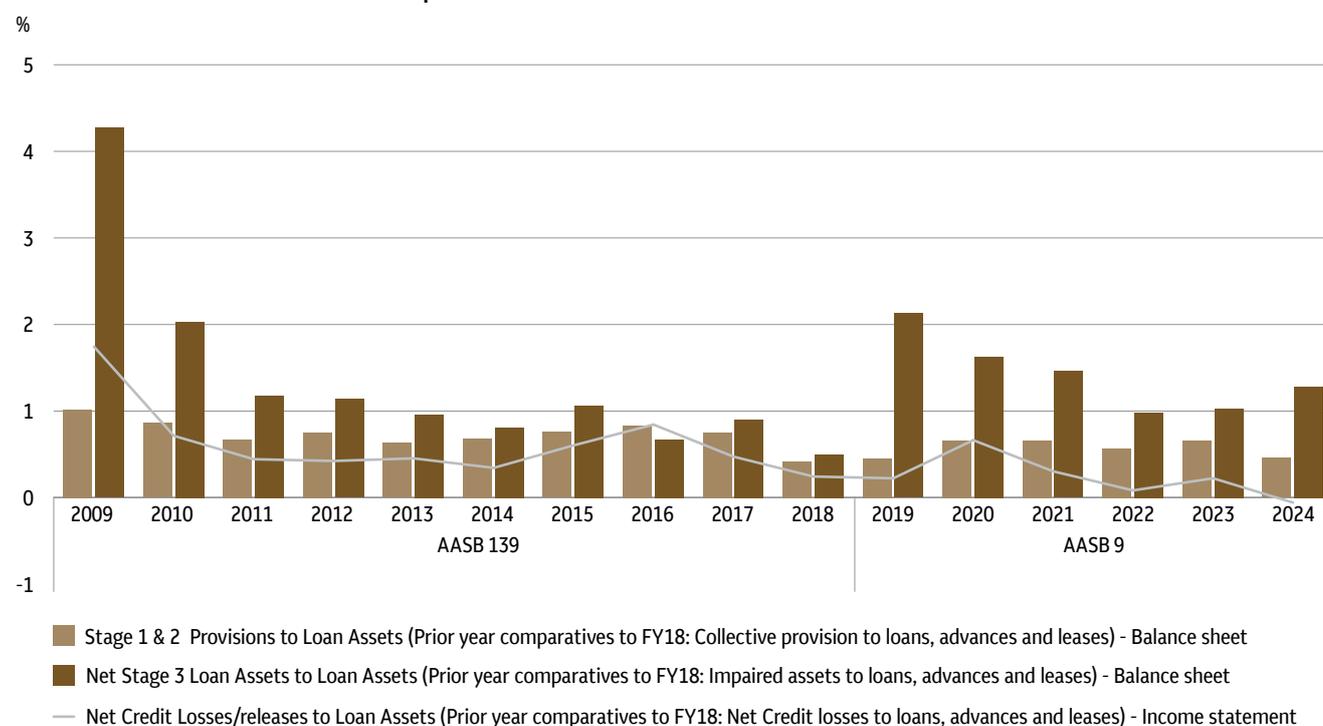
## Loan impairment review

Macquarie prospectively adopted AASB 9 *Financial Instruments* (AASB 9) effective 1 April 2018. As permitted by AASB 9, prior year comparative information was not restated. AASB 9 contains requirements for the classification and measurement of certain financial instruments, hedge accounting requirements and, from a credit provisioning perspective, introduced an expected credit loss methodology, which differed to the incurred loss methodology applied prior to FY2019.

For AASB 9 disclosures refer to Note 36.1 *Credit risk* to the financial statements including disclosure of loan asset exposures by stage of credit performance. Note 13 *Expected credit losses* to the financial statements discloses expected credit losses on loan assets by stage of credit performance. The FY2024 numbers presented below are calculated with reference to this information. Loan assets categorised as Stage 3 in terms of AASB 9 are defined as 'credit impaired'. As noted, AASB 9 did not require the restatement of comparative information, and for that reason the comparative numbers in the graph below have not been restated.

Underlying credit quality in FY2024, remains broadly unchanged relative to FY2023, with the reduction in Stage 1 & 2 Provisions, and Net Credit Losses, being the result of a more favourable forward looking economic outlook as at 31 March 2024 compared to 31 March 2023 (as disclosed in the Notes to the financial statements). The increase in Stage 3 Loan Assets, is the result of inflationary pressure on wages and costs in addition to the higher interest rate environment.

## Ratio of Provisions and Credit Impaired Loan Assets to Loans Assets



## Notes to prior year comparatives<sup>(1)</sup>

- Loans, advances and leases excluded securitised mortgages, securitised Macquarie Capital loans/leases, segregated futures funds and receivables in the form of fees.
- The collective provision is intended to cover losses inherent in the existing overall credit portfolio which are not yet specifically identifiable.
- Net impaired assets and net losses excluded investment securities.
- Net credit losses represented the total P&L impact in the stated period due to additional individual provisions, direct write-offs (net of any writebacks) and change in Stage 1 & 2 provisions.

(1) The information for the financial years ended 31 March 2009-2024 is based on results using the Australian Accounting Standards that were effective and adopted by the Consolidated Entity at the reporting dates. Reporting periods have been restated only to the extent as required by the accounting standards. The financial reporting periods may hence not be fully comparable with one another as a result of changes in accounting standards' requirements.

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