

# Risk Management and Internal Controls

Bank Negara Malaysia (BNM) is exposed to various risks arising from its daily activities and operations. Risk events, should they occur, may impede BNM from achieving its policy objectives, create financial losses or business disruptions, and in turn lead to adverse impacts on BNM's reputation. To address this, BNM implements the Enterprise Risk Management (ERM) Framework.

The ERM Framework facilitates a systematic identification, assessment, monitoring and management of risks. It sets up the necessary oversight, control, and discipline to foster a robust risk culture (Diagram 1). The ERM Framework also serves to align BNM's risk management frameworks, policies, processes and systems across the organisation.

## Ensuring Our Risk Oversight and Governance are Robust and Effective

Our risk governance structure (Diagram 2) reflects a collective responsibility for managing risks. This shared responsibility cuts across line departments, independent risk management and control functions, as well as internal audit.

BNM's Board of Directors, supported by the Board Risk Committee, oversees our risk management frameworks and practices. The Board of Directors also sets the 'tone

from the top' in promoting the desired risk culture across the organisation.

The accountability for implementing sound risk management rests with BNM's Senior Management. This is operationalised through the Risk Management Committee (RMC) and Reserve Management Committee (ReMC). The RMC is the main forum for focused and regular deliberation on enterprise risk issues. The ReMC oversees investment risks relating to the management of BNM's international reserves.

The RMC is supported by the Financial Risk Management Committee (FRMC), Operational Risk Management Committee (ORMC) and Crisis Management Team (CMT). The FRMC and ORMC are management sub-committees responsible for providing focused oversight over BNM's management of financial and operational risks respectively. Meanwhile, the CMT provides oversight on business continuity management by ensuring crisis preparedness. The CMT also coordinates BNM's response to operational disruptions.

In supporting the Board of Directors and Management Committee in discharging their duties, BNM adopts the 'three lines of defence' model (Diagram 3):

- Business units are the 'first line' of defence. They are responsible for evaluating the risk environment, establishing controls and ensuring that these controls are implemented effectively.
- The 'second line' function is carried out by the Risk Management Department. For reserves management and investments, this function is carried out by a dedicated Treasury Risk Management Section within the Treasury Risk and Infrastructure Unit that reports directly to a Deputy Governor.<sup>1</sup> This set-up supports the independent assessment and monitoring of risks facing BNM. It also reinforces the adoption of sound risk management practices by business

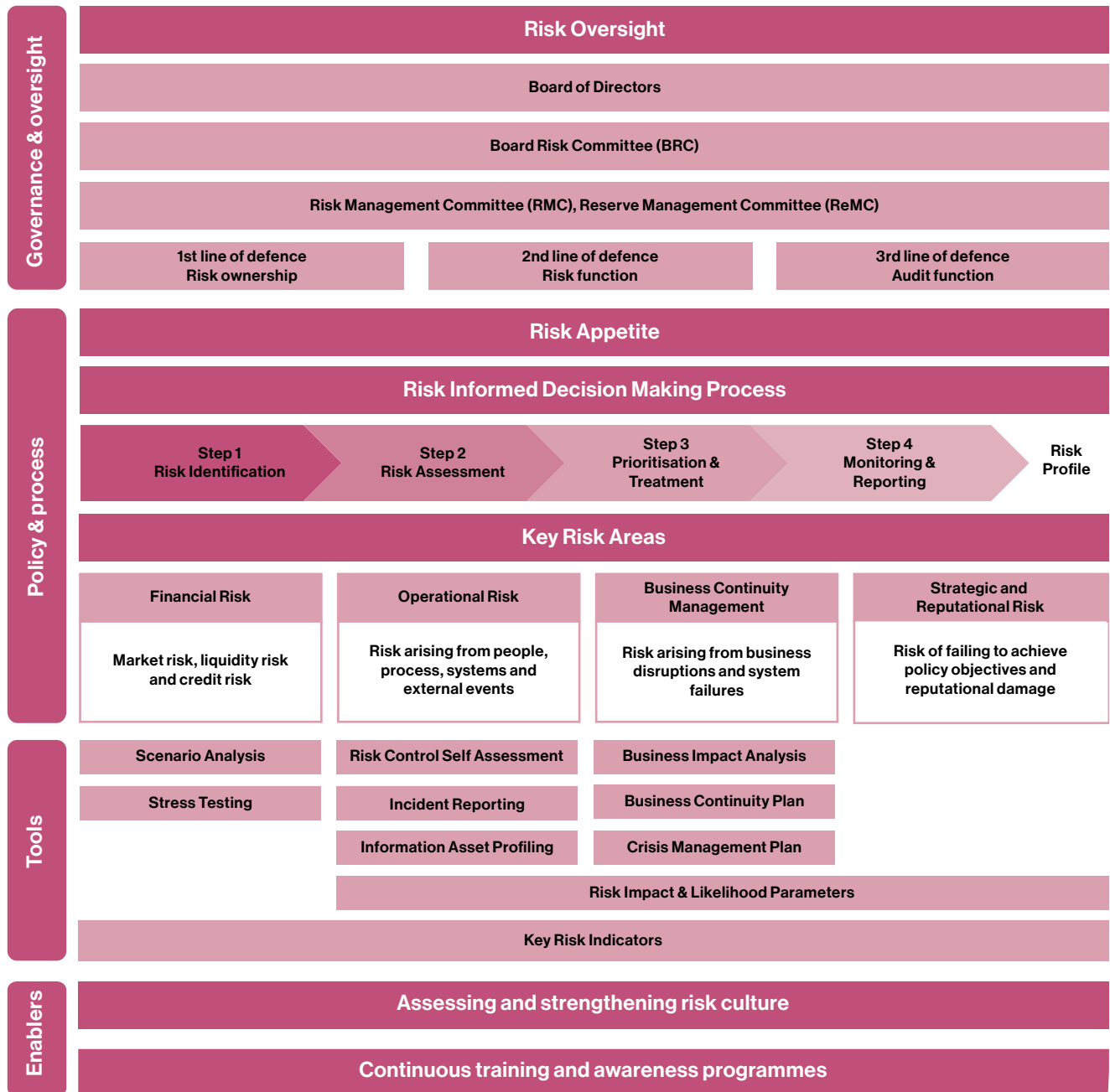
<sup>1</sup> Up until 31 January 2025, this Unit was under the Investment Operations and Financial Markets Department.

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units through appropriate frameworks, policies and tools. The Risk Management Department supports Senior Management and has a direct reporting line to the Board Risk Committee in monitoring risk developments and issues at an organisation level.

- The 'third line' of defence is the Internal Audit Department that provides independent assurance of the effectiveness of risk management policies and measures. The Internal Audit Department reports directly to the Board Audit Committee.

**Diagram 1: Bank Negara Malaysia's Enterprise Risk Management Framework**



Source: Bank Negara Malaysia

Diagram 2: Risk Management Governance Structure



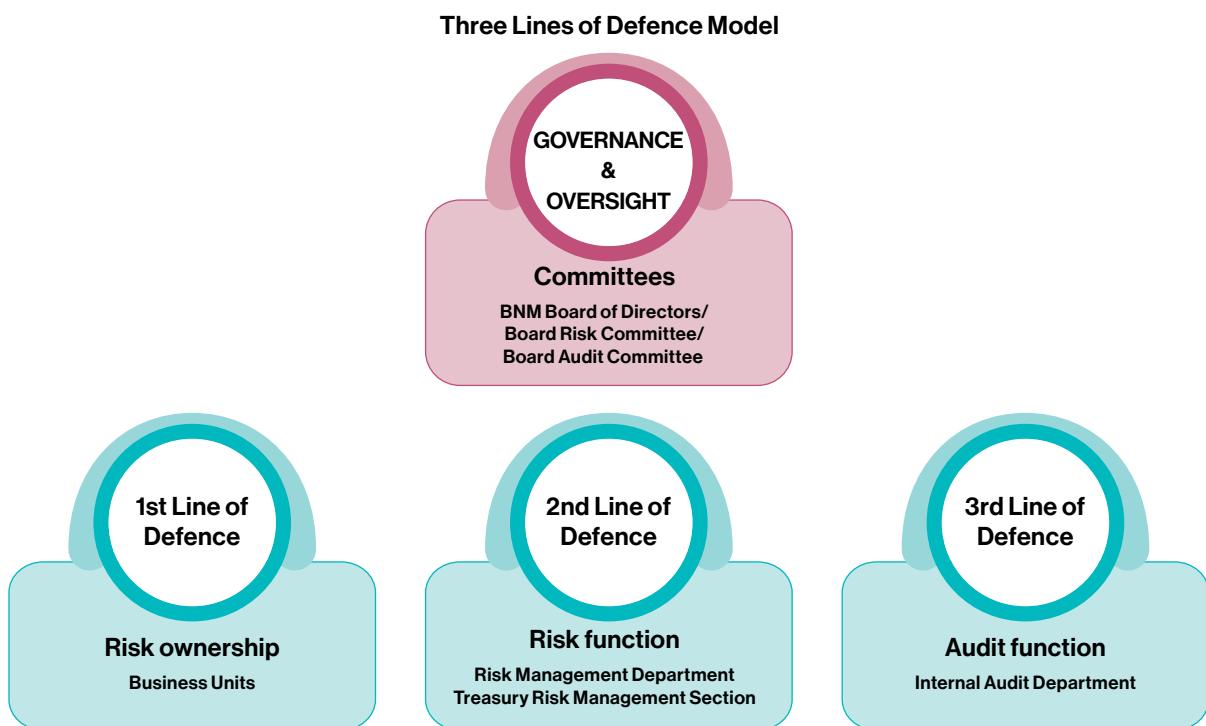
<sup>1</sup> Chaired by an Independent Non-Executive Director of BNM

<sup>2</sup> Chaired by Governor

<sup>3</sup> Chaired by Deputy Governor

Source: Bank Negara Malaysia

Diagram 3: Three Lines of Defence Model



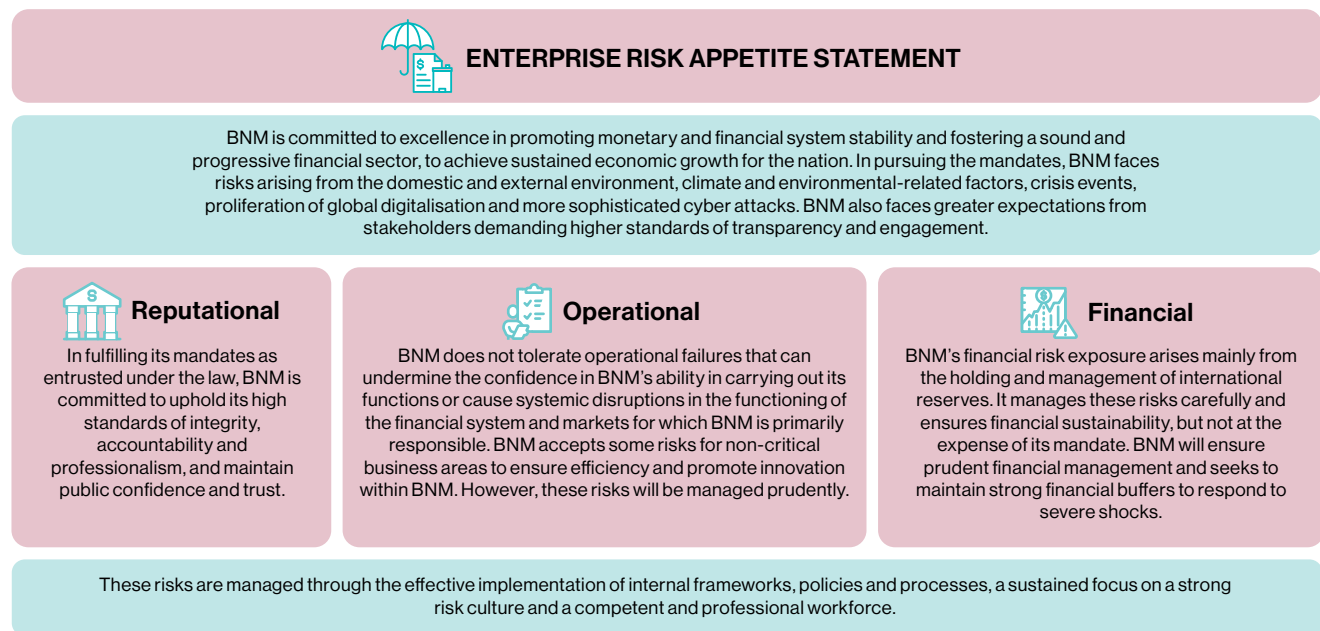
Source: Bank Negara Malaysia

## Managing Risks Through the Enterprise Risk Appetite Statements

BNM's risk management is guided by a set of enterprise risk appetite statements (Diagram 4), which specify the level and types of risk that BNM is willing to accept to achieve its business objectives. Sound risk management practices are thus balanced with promoting

an appropriate level of risk taking for creativity and innovation. The statements are subject to periodic reviews to ensure that they remain relevant in light of the changing risk landscape. Continuous training, engagements and process enhancements are undertaken at various levels across the organisation's functions. These initiatives aim to integrate and align our operational processes and culture with BNM's risk appetite statements.

Diagram 4: Bank Negara Malaysia's Risk Appetite Statements



Source: Bank Negara Malaysia

In complementing this risk awareness culture, consequence management actions to deal with events of breaches are taken to promote compliance and ensures accountability at all levels of the organisation.

## Managing BNM's Key Organisational Risks Throughout the Year

Throughout 2024, we strived to improve our risk management processes, while also putting into practice our risk management framework when responding to challenges. We also worked closely with relevant authorities to ensure that we remain in compliance with the regulatory and legal requirements applicable to BNM and continue to achieve our strategic objectives and discharge our obligations as a central bank.

In managing policy risks, we are committed to sound policymaking practices, guided by our Policy Development Framework. The Framework establishes a well-defined governance structure and process for developing, reviewing and approving regulatory policies issued by BNM. Policy proposals are subject to cross-functional deliberations within the organisation, as well as external consultations. Regulatory policies are approved by the Management Committee, the Financial Stability Committee or the Financial Development Committee.

Monetary policy decisions reside with the Monetary Policy Committee.

We strived to continuously engage with wide-ranging stakeholders on prevailing issues facing the economy and financial system; and on BNM policies. These engagements aim not only to share BNM's views and responses but also to seek feedback to deepen our understanding of our stakeholders' perspectives. Some of the key areas that required sustained engagements were on the developments on the ringgit exchange rate and financial scams. BNM also intensified its external engagements on the implementation of co-payment requirements and premium repricing for medical and health insurance and takaful products. As a public institution, we place importance on providing transparency and explaining our actions and policies to encourage better understanding by our stakeholders and to achieve the intended policy objectives.

On treasury-related financial risks, BNM is exposed to market, credit and liquidity risks. These risks are closely monitored and managed against the investment benchmark and risk controls approved by the Board of Directors. We continued to leverage various tools to mitigate financial risks, including the Pre-Emptive De-Risking Mechanism (PRISM) which is designed to limit investment portfolio volatility during potential periods of prolonged market stress.

Risks from other non-treasury financial operations, including budgeting, procurement, and payments, are controlled through strictly enforced policies and procedures to ensure transparency, accountability, and compliance with relevant regulations. We adhere to a robust budgeting and management accounting process that is underpinned by forward planning, forecasting and spend analysis. The budget is closely monitored by the Board of Directors. Procurement risks are managed through appropriate procurement strategies that are driven by the risk impact to BNM's operations, complexity of the goods or service to be procured and value of the procurement. In addition, the Board of Directors approved the establishment of a Staff Integrity Framework which complements BNM's Code of Conduct to manage integrity-related risks in procurements. As part of continuous efforts to achieve greater transparency and efficiency in procurements, we have embarked on a digital transformation to modernise and digitalise the end-to-end procurement process.

As in previous years, we continue to intensify measures to safeguard our critical infrastructure, systems and data against technology and cyber security risks. BNM's technology function is governed by the Technology and Cyber Security Working Group (TCSWG), chaired by a Deputy Governor and with its membership made up of senior management from technology, risk management, and business units. The TCSWG's mandate encompasses the management and oversight of technology and cyber security risks, the overall efficiency and effectiveness of IT services, and the prioritisation of technology initiatives across BNM.

In 2024, BNM achieved its three-year Cybersecurity Management Assessment Program (CMAP) milestones by meeting the target maturity level in the related cyber security domains and areas. We adopt industry best practices and proactively manage risks through the implementation of relevant processes and technology to ensure the continuous operational resilience of our critical infrastructure and systems. The readiness aspects of our people are equally important. In this regard, various awareness and education programs as well as cyber drill exercises were implemented across BNM. As cyber threats evolve, we will strive to continuously improve our cyber security management strategies, secure the protection and resilience of our digital eco-systems and operations, and foster a cyber-aware culture. We proactively engage and collaborate closely with relevant

authorities to ensure that BNM complies with the regulatory and legal requirements with respect to data and cyber security. We also have a Data Protection Officer (DPO) responsible for ensuring that we comply with the Personal Data Protection Act 2010 (PDPA).

Similarly, effective risk management of Financial Market Infrastructures (FMIs), particularly the Real Time Electronic Transfer of Funds and Securities System (RENTAS) and the Fully Automated System for Issuing/ Tendering (FAST), is crucial for maintaining financial market stability. The oversight body responsible for ensuring the stability and security of FMIs is the Financial Market Infrastructure Committee (FMIC), which BNM established in 2021. FMIC is chaired by a Deputy Governor with committee membership composed of Assistant Governors and the Chief Information Officer, along with external experts in payments, financial market infrastructures, risk, and technology. The FMIC's responsibilities include overseeing policies and strategies related to risk management, setting the strategic direction for our FMIs, as well as ensuring the efficiency, reliability and effectiveness of our financial market infrastructures as a catalyst, enabler and facilitator for the growth of our financial markets and financial system.

## Strengthening BNM's Business Continuity Management

Ensuring the continuity of critical business functions remains a top priority for BNM. As part of our business continuity and crisis management, we conduct crisis simulation exercises to test and improve our ability to respond and recover from disruptions. In 2024, three physical scenario exercises were conducted. These were a fire drill and a bomb threat drill at the Kuala Lumpur office, and a field training exercise on armed robbery and bomb threat at the BNM Regional Office Kuala Terengganu (BNMKT) in collaboration with relevant agencies. Separately, we conducted a cyber drill which simulated a variety of scenarios to test and improve our cyber security preparedness, incident response capabilities and overall resilience. Observations from cyber drill exercises conducted serve as input to the ongoing testing and refinements of our Cyber Crisis Communications Playbook which guides communications across all BNM's key stakeholders in the event of a cyber incident.



Field Training Exercise was successfully conducted on 28 September 2024 at BNMKT through great support from internal and external collaborators.

## Internal Audit

The Board Audit Committee (BAC) is responsible for overseeing the adequacy and effectiveness of BNM's internal controls and integrity of the financial reporting process. In discharging its responsibilities, the BAC is supported by the Internal Audit Department.

The Internal Audit Department serves as an independent function that provides risk-based and objective assurance to the BAC and Senior Management on the adequacy and effectiveness of BNM's governance, risk management, and internal controls. Additionally, the Internal Audit Department provides the Minister of Finance with an independent quarterly report of BNM's international reserves management activities. This is to assure the Minister that international reserves have been managed in accordance with policies and guidelines approved by the Board of Directors.

Audit priorities in 2024 were established by taking into account key and emerging organisational risks, as well as BNM's strategic objectives. Integrated insights from key stakeholders, including the BAC, Senior Management, the Risk Management Department and various business units, shaped the audit focus and scope of coverage (Diagram 5). A total of 25 audits were conducted during the year, including reviews on the overseas representative offices and affiliate institutions. The Internal Audit Department also undertakes thematic reviews to assess the implementation of cross-cutting controls across BNM's functions and departments. The outcome of these reviews led to specific recommendations that were implemented to further enhance BNM's governance and risk controls.

During the year, audit recommendations supported several improvements made to key controls in the areas of cyber security hygiene, IT infrastructure and crisis

preparedness to ensure BNM's mandates are performed efficiently. Improvement opportunities were also identified to further strengthen BNM's ethics and risk culture to promote sound risk management behaviours and strong internal control practices.

In 2024, the Internal Audit Department continued to harness the benefits of digitalisation and automation to further enhance operational efficiency. The deployment of automated tools enabled swift and comprehensive assessments of prevalent control gaps, facilitating effective resolutions. Additionally, the development of interactive and intuitive data analytic dashboards has enabled more effective continuous auditing through the monitoring of key risk and control indicators. It also provided the foundation for a more integrated approach in the monitoring and assessment of BNM's internal controls. The upskilling of the Internal Audit Department's staff in data analytics and generative AI played a key role in achieving its technology enablement objectives.

During the year, the Internal Audit Department undertook an exercise to align its audit framework and practices with the revised Institute of Internal Auditor's (IIA) Global Internal Audit Standards. This is to ensure readiness in implementing the new requirements and continued conformance to the standards. Refinements were also made to the audit framework to enhance the accuracy of assessments and facilitate effective communication of audit outcomes to key stakeholders.

Going forward, the Internal Audit Department will increase its adoption of advanced data analytics and artificial intelligence tools, building on traditional audit methods. The Internal Audit Department will also continue to improve its engagements with line departments and other stakeholders, affirming its role in providing value-added assurance on BNM's governance processes, risk management, and internal controls.

Diagram 5: Focus and Coverage of Audits Conducted in 2024



Source: Bank Negara Malaysia