Risk

(Figures expressed in millions of Hong Kong dollars unless otherwise indicated)

Our approach to risk

(unaudited)

Our risk appetite

Our risk appetite defines the level and types of risk that we are willing to take, while informing the financial planning process and guiding strategic decision making. Our risk appetite is defined as the aggregate level of risk that the Bank is comfortable to take to achieve its strategic objectives. Risk appetite also provides a mechanism for non-executive directors and executive directors to collectively establish the Bank's willingness to engage in certain activities and assess these activities.

Enterprise-wide application

Our risk appetite is expressed in both quantitative and qualitative terms.

The Board reviews and approves the Group's risk appetite regularly to make sure it remains fit for purpose. The risk appetite is considered, developed and enhanced through the following principles:

- alignment with our strategy, purpose, values, external risk environment, reputational and customer needs;
- compliance with applicable laws, regulations and regulatory priorities;
- forward-looking insights into future risk exposure;
- sufficiency of available capital, liquidity and balance sheet leverage to absorb the risks;
- capacity and capabilities of people to manage the risk landscape;
- functionality, capacity and resilience of available systems to manage the risk landscape;
- effectiveness of the applicable control environment to mitigate risk; and
- internally and externally disclosed commitments.

We formally articulate our risk appetite through our risk appetite statement ('RAS'), which is approved by the Board on the recommendation of the Risk Committee ('RC'). Setting out our risk appetite helps ensure that we agree a suitable level of risk for our strategy. In this way, risk appetite informs our financial planning process and helps senior management to allocate capital to business activities, services and products.

Performance against the RAS is reported to the Risk Management Meeting ('RMM') regularly to support targeted insight and discussion on breaches of risk appetite and any associated mitigating actions. This reporting allows risks to be promptly identified and mitigated, and informs risk-adjusted remuneration to drive a strong risk culture.

Risk Management

We recognise that the primary role of risk management is to help protect our customers, business, colleagues, shareholders and the communities that we serve, while ensuring we are able to support our strategy and provide sustainable growth. This is supported through our three lines of defence model.

In addition, we recognise the importance of a strong culture, which refers to our shared attitudes, beliefs, values and standards that shape behaviours including those related to risk awareness, risk taking and risk management. All our people are responsible for the management of risk, with ultimate supervisory oversight residing with the Board.

The implementation of our business strategy remains a key focus. As we implement change initiatives, we actively manage the execution risks. We also perform periodic risk assessments, including against strategies, to help ensure retention of key personnel for our continued safe operation.

We aim to use a comprehensive risk management approach across the organisation and across all risk types, underpinned by our culture and values. This is outlined in our risk management framework, including the key principles and practices that we employ in managing material risks, both financial and non-financial.

The framework fosters continual monitoring, promotes risk awareness and a positive risk culture. It encourages a sound operational and strategic decision making and escalation process. It also supports a consistent approach to identify, assess, manage and report the risks we accept and incur in our activities, with clear accountabilities. We continue to enhance our approach to manage risk.

Our risk management framework

The following diagram and descriptions summarise key aspects of the risk management framework, including governance, structure, risk management tools and our risk culture, which together help align employee behaviour with our risk appetite.

Key components of our risk management framework

Our Values and Risk Culture

Risk governance	Non-executive risk governance	The Board approves the risk appetite, plans and performance targets. It sets the 'tone from the top' and is advised by the RC.
	Executive risk governance	Our executive risk governance structure is responsible for the enterprise-wide management of all risks, including key policies and frameworks for the management of risk within the Group.
Roles and responsibilities	Three lines of defence model	Our 'Three lines of defence' model defines roles and responsibilities for risk management. An independent Risk and Compliance function helps ensure the necessary balance in risk/return decisions.
Processes and tools	Risk appetite	The Group has processes in place to identify, assess, monitor, manage and report risks to help ensure we remain within our risk appetite.
	Enterprise-wide risk management tools	
	Active risk management: identification/assessment, monitoring, management and reporting	
Internal controls	Policies and procedures	Policies and procedures define the minimum requirements for the controls required to manage our risks.
	Control activities	Non-financial risk stewards define the minimum control standards for managing non-financial risks.
	Systems and infrastructure	The Group has systems and/or processes that support the identification, capture and exchange of information to support risk management activities.

Risk governance

The Board has ultimate supervisory responsibility for the effective management of risk and approves our risk appetite. It is advised on risk-related matters by the RC. Through review and independent challenge of reports presented by management at RC meetings, the RC oversees the effectiveness of monitoring, assessment and management of the risk environment as well as the risk management framework.

The Chief Risk and Compliance Officer, supported by members of the RMM, holds executive accountability for the ongoing monitoring, assessment and management of the risk environment and the effectiveness of the risk management framework.

Day-to-day responsibility for risk management is delegated to senior managers with individual accountability for decision making. All our people have a role to play in risk management. These roles are defined using the three lines of defence model, which takes into account the Group's business and functional structures.

We use a defined executive risk governance structure to help ensure there is appropriate oversight and accountability of risk, which facilitates reporting and escalation to the RMM.

A Product Oversight Committee reporting to the RMM and comprising senior executives from Risk and Compliance, Legal, Finance, and Operations/IT, is responsible for reviewing and approving the launch of such new products and services. Each new service and product launch is also subject to an operational risk self-assessment process, which includes identification, evaluation and mitigation of risk arising from the new initiative. Internal Audit is consulted on the internal control aspect of new products and services in development prior to implementation.

Our roles and responsibilities

All our people are responsible for identifying and managing risk within the scope of their roles. Roles are defined using the three lines of defence model, which takes into account our business and functional structure.

Three lines of defence

To create a robust control environment to manage risks, we use an activity-based three lines of defence model. This model delineates management accountabilities and responsibilities for risk management and the control environment. This model underpins our approach to risk management by clarifying responsibility and encouraging collaboration, as well as enabling efficient coordination of risk and control activities.

The three lines of defence are summarised below:

- The first line of defence owns the risks and is responsible for identifying, recording, reporting and managing them in line with risk appetite, and ensuring that the right controls and assessments are in place to mitigate them.
- The second line of defence challenges the first line of defence on effective risk management, and provides advice and guidance of the first line of defence to ensure it is managing risk effectively.
- The third line of defence is our Internal Audit function, which provides independent assurance that our risk management approach and processes are designed and operating effectively.

Independent risk and compliance function

The Group's Risk and Compliance function, headed by the Chief Risk and Compliance Officer, is responsible for the Group's risk management framework. This responsibility includes establishing and monitoring of risk profiles, and identifying and managing forward-looking risk. The Group's Risk and Compliance function is made up of sub-functions covering all risks to our business. Forming part of the second line of defence, the Group's Risk and Compliance function is independent from the business, including sales and trading functions. It provides challenge, appropriate oversight and balance in risk/return decisions.

Responsibility for minimising both financial and non-financial risk lies with our people. They are required to manage the risks of the business and operational activities for which they are responsible.

We maintain adequate oversight of our risks through various specialist Risk Stewards and the collective accountability held by the Chief Risk and Compliance Officer and global businesses.

We have continued to strengthen the control environment and our approach to the management of risks, as set out in our risk management framework. Our ongoing focus is on helping to ensure more effective oversight and better end-to-end identification and management of financial and non-financial risks.

Risk management tools

(unaudited)

The Group uses a range of tools to identify, monitor and manage risk. The key tools are summarised below.

Risk appetite

Risk Appetite ('RA') is defined as the aggregate risks that the Group is comfortable taking to achieve its strategic objectives. RA also defines the risks that are not tolerated in order to operate effectively. RA is articulated through RAS, which consists of qualitative statements and quantitative metrics covering both financial and non-financial risks that are material to the Group.

RA supports senior management in taking action to ensure strategic growth within desired risk and remediate unacceptable risk, while monitoring exposure which may impact our customers or lead to sub-optimal returns to shareholders, regulatory censure, or reputational damage. The RMM reviews the Group's actual risk appetite profile in which the quantitative metrics have pre-defined Risk Appetite and Risk Tolerance thresholds against which performance is measured and monitored. The actual risk appetite profile is also reported to the RC and the Board by Chief Risk and Compliance Officer including breach commentary.

Risk map

The Group uses a risk map to provide a point-in-time view of its residual risk profile across both financial and non-financial risks. This highlights the potential for these risks to materially affect our financial results, reputation or business sustainability. Risk stewards assign risk ratings, supported by commentary. Risks that have an 'Amber' or 'Red' risk rating require monitoring and mitigating action plans being either in place or initiated to manage the risk down to acceptable levels.

Top and emerging risks

We use a top and emerging risks process to provide a forward-looking view of issues with the potential to threaten the execution of our strategy or operations over the medium to long term.

We proactively assess the internal and external risk environment, as well as review the themes identified across our organisation and global businesses, for any risks that may require escalation. Our suite of top and emerging risks is subject to regular review by senior governance forums and are updated as necessary. We continue to monitor closely the identified risks and ensure management actions are in place, as required.

Stress testing and recovery planning

The Group operates a wide-ranging stress testing programme that is a key part of our risk management, and capital and liquidity planning. Stress testing provides management with key insights into the impact of severely adverse events on the Group, and provides confidence to regulators on the Group's financial stability.

Our stress testing programme assesses our capital and liquidity strength through a rigorous examination of our resilience to external shocks. As well as undertaking regulatory-driven stress tests, we conduct our own internal stress tests, in order to understand the nature and level of all material risks, quantify the impact of such risks and develop plausible business-as-usual mitigating actions.

Internal stress tests

Our internal capital assessment uses a range of stress scenarios that explore risks identified by management. They include potential adverse macroeconomic, geopolitical and operational risk events, as well as other potential events that are specific to the Group.

The selection of stress scenarios is based upon the output of our top and emerging risks identified and our risk appetite. Stress testing analysis helps management understand the nature and extent of vulnerabilities which the Group is exposed to. Using this information, management decides whether risks can or should be mitigated through management actions or, if they were to crystallise, should be absorbed through capital and liquidity. This in turn informs decisions about preferred levels and allocations of capital and liquidity resources.

The Group also participate, as required, in the regulatory stress testing programmes of the jurisdictions in which they operate, including the stress tests of the HKMA. Functions and businesses also perform bespoke stress testing to inform their assessment of risks in potential scenarios.

We also conduct reverse stress tests each year at a Group level and, where required, at subsidiary entity level to understand potential extreme conditions that would make our business model non-viable. Reverse stress testing identifies potential stresses and vulnerabilities we might face, and helps inform early warning triggers, management actions and contingency plans.

The Group stress testing programme is overseen by the RC and results are reported, where appropriate, to the RMM, RC and the Board.

Recovery and resolution plans

Recovery and resolution plans form an integral framework in the safeguarding of the Group's financial stability under severe stress. The recovery plan, together with stress testing, helps us to generate business insights to identify credible recovery options that can be implemented under a range of idiosyncratic and market-wide stress scenarios to mitigate the potential shortfall in capital and liquidity pressures.

Key developments in 2024

We have continued to manage risks related to macroeconomic and geopolitical uncertainties, as well as the China commercial real estate ('CRE') sector and other key risks described in this section.

In 2024, we enhanced our risk management in the following areas:

- We enhanced our processes, framework and controls to improve the oversight of our material third parties with respect to financial stability to better manage our supply chain and operational resilience. We will continue to assess and manage our operational resilience.
- We made progress on our comprehensive regulatory reporting programme, which seeks to strengthen our processes, enhance consistency and improve controls across regulatory reports. This programme remains a top priority and continues to enhance data, transform the reporting systems and uplift the control environment over the report production process.
- We continued to enhance model risk framework in response to changes in regulation. Artificial Intelligence ('AI') and machine learning models remain a key focus. Progress has been made in enhancing governance activity in this area with particular focus on generative AI due to the pace of technological change and regulatory and wider interest in adoption and usage.
- We continued to embed climate considerations throughout the organisation, including through policy updates. Risk metrics have been developed to monitor and manage our exposure to climate risk. We will continue to complete our annual materiality assessment and make changes to policies, processes and capabilities to better embed climate considerations throughout the organisation.
- We deployed industry-leading technology and advanced analytics capabilities to improve our ability to identify suspicious activities and prevent financial crime. We will continue to evaluate technological solutions to improve our capabilities in the detection and prevention of financial crime.
- We continued to embed our Regulatory management systems focused on horizon scanning, regulatory mapping, and regulatory content for our inventory.

Areas of Special Interest

During 2024, a number of areas were identified and considered as part of our top and emerging risks because of the effect they may have on the Group. We place particular focus in this section on geopolitical and macroeconomic risks, technology and cyber security risk, financial crime risk and climate related risks.

Geopolitical and macroeconomic risk

(unaudited)

Elections and subsequent changes of government during 2024 have created uncertainty as domestic and foreign policy priorities have shifted. The US in particular is expected to bring about changes to economic and foreign policy that will have broad economic and geographical implications.

The relationships between China and several other countries, including the US and the UK, remain complex.

To date, the US, the UK, the EU and other countries have imposed various sanctions and trade restrictions on Chinese persons and companies, and there is a continued risk of additional sanctions and trade restrictions or tariffs being imposed by the US and other governments in relation to human rights abuses, advances in certain sensitive technologies, and other issues. For example, during 2024, the US imposed restrictions on outbound investment in sensitive technologies in Chinese companies, and both the US and EU raised the rate at which they level tariffs on a range of Chinese imports, including electric vehicles. These have been imposed on the basis of unfair competition, where the Chinese government is accused of providing unfair subsidies to industry.

China, in turn, imposed a number of its own sanctions and trade restrictions that target, or provide authority to target, foreign individuals or companies as well as certain goods such as rare earth minerals and metals, and technology and services. These, as well as certain law enforcement measures, have been and may continue to be imposed against certain countries, businesses and individuals.

As the geopolitical landscape evolves, compliance by multinational corporations with their legal or regulatory obligations in one jurisdiction may be seen as supporting the law or policy objectives of that jurisdiction over another, creating additional compliance, reputational and political risks for the Group. We maintain dialogue with our regulators in various jurisdictions on the impact of legal and regulatory obligations on our business and customers.

While it is the Group's policy to comply with all applicable laws and regulations in all jurisdictions in which it operates, geopolitical tensions and potential ambiguities in the Group's compliance obligations continue to present challenges and risks and these could have a material adverse impact on the Group's strategy, business, customers, operations, financial results and reputation.

China's expanding data privacy, national security and cybersecurity laws could pose potential challenges to intra-group data sharing. These developments may affect our ability to manage financial crime risks across markets due to limitations on cross-border transfers of personal information. In Hong Kong, there is also an increasing focus by regulators on the use of big data and Artificial Intelligence.

The Russia-Ukraine and the Middle East conflict, and their potential escalation or resurgence may impact economic activity for a prolonged period. The Israel-Hamas conflict continues, but regional economic impact was relatively limited throughout 2024.

The Group continues to monitor and respond to financial sanctions and trade restrictions that have been adopted in response to the conflict. The sanctions and trade restrictions imposed by the US, the UK and the EU, as well as other countries, remain complex, far reaching and evolving. The US has expanded the reach of its secondary sanctions regime, which includes broad discretion to impose severe sanctions on non-US banks that are knowingly or even unknowingly engaged in certain transactions or services directly or indirectly involving Russia's military-industrial base, including certain third-party activities that are difficult to detect or beyond HSBC's control.

In response to such sanctions and trade restrictions, as well as asset flight, Russia has implemented certain countermeasures, including the expropriation of foreign assets.

These and any future measures and countermeasures that may be taken by the US, China and other countries may affect the Group, its customers and the markets in which the Group operates.

Key economic and financial risks are monitored closely. Major markets, including the US and UK, continued to grow during the second half of 2024, due to an expansionary fiscal policies and the positive impact of monetary easing on domestic demand and investment. Similarly, Hong Kong and mainland China also continued to grow, despite ongoing declines in house prices and weakness in consumer spending.

The outlook for 2025 remains uncertain as the new US administration intends to enact a significant change in economic and foreign policies that could have an uncertain impact on global growth, inflation and interest rates. In particular, the prospect of higher US tariff rates and retaliatory actions on trade has started to weigh on economic growth forecasts and has raised future inflation expectations. Consequently, markets now expect that major central banks will adopt a more cautious approach to lower policy interest rates during the course of 2025.

The prospective impact on individual economies from the imposition of higher US tariffs will depend on the breadth and level of the increases and the dependence of the countries' exports on US import demand.

The country and sector implications of changing global tariff policies remains an area that is closely monitored. The implications for export demand from mainland China and Hong Kong is a key area of concern.

We continue to monitor real estate conditions in mainland China and Hong Kong, where activity remains subdued. Various central government policies have been introduced to support the property market and wider economy, but meaningful signs of recovery are yet to be observed.

In Hong Kong, the high vacancy rate in the commercial real estate sector and the elevated interest rate environment have added pressure to the commercial real estate market. Commercial land sales resumed during the latter part of 2024 after a halt earlier in the year, and the recent reduction in interest rates has provided some liquidity relief to borrowers operating in this sector. Nevertheless, a sustainable recovery in confidence and underlying demand is contingent on a more meaningful reduction in interest rates. We continue to closely monitor the risk of further credit deterioration and defaults in the portfolio.

Impairment of assets against credit loss is conducted under the HKFRS 9 *'Financial Instruments'* calculations of ECL, which use forward-looking scenarios that incorporate the economic and financial risks detailed above.

Changes to economic and financial policies, including an adjustment for tariff increases, were a key consideration in the calculation of ECL in the fourth quarter of 2024, in addition to inflation and high interest rates. Those could also have an impact on our customers and we continue to closely monitor the impact to offer the right support to our customers in line with regulatory, government and wider stakeholder expectations.

In the fourth quarter of 2024, the Central scenario, which has the highest probability weighting in our HKFRS 9 *'Financial Instruments'* calculations of ECL, incorporated more recent views on the economic landscape, including evolving views on the effects of global tariff rates via an adjustment to our macroeconomic scenarios.

In light of the adjustment the Central scenario has been assigned the standard weighting across all of our major markets. Outer scenarios have incorporated more adverse tariff escalations and the escalation of key geopolitical risks.

There remains uncertainty regarding the adequacy of our models to reflect credit losses under emerging risks which are not captured under the historical loss experience of our models, or to adequately discriminate risks for specific sectors or portfolios.

Mitigating actions

- We continue to monitor, and seek to manage, the potential implications of all the above developments on our customers and our business.
- We closely monitor the geopolitical and economic developments in key markets and sectors and actively manage our credit portfolio through enhanced monitoring, thematic reviews, internal stress tests, etc.
- We continue to support our customers and manage risk and exposures as appropriate.
- We continue to seek to manage sanctions and trade restrictions through the use of reasonably designed policies, procedures and controls, which are subject to ongoing testing, auditing and enhancements.

Technology and cyber security risk

(unaudited)

We operate an extensive and complex technology landscape, which must remain resilient in order to support customers and the Group. Risks arise where technology is not understood, maintained, or developed appropriately. Together with other organisations, we continue to operate in an increasingly hostile cyber threat environment. These threats include potential unauthorised access to customer accounts, attacks on our systems or those of our third-party suppliers and require ongoing investment in business and technical controls to defend against them.

Mitigating actions

- We continue to invest in transforming how software solutions are developed, delivered and maintained. We invest both to improve system resilience and test service continuity. We continue to ensure security is built into our software development life cycle and improve our testing processes and tools.

- We continue to upgrade our IT systems, simplify our service provision and replace older IT infrastructure and publications.
- We continually evaluate threat levels for the most prevalent attack types and their potential outcomes. To further protect the Group and our customers and help ensure the safe expansion of our global businesses, we continue to strengthen our controls to reduce the likelihood and impact of advanced malware, data leakage, exposure through third parties and security vulnerabilities.
- We continue to enhance our cybersecurity capabilities, including cloud security, identity and access management, metrics and data analytics, and third-party security reviews. An important part of our defence strategy is ensuring our colleagues remain aware of cybersecurity issues and know how to report incidents.
- We report and review cyber risk and control effectiveness at executive and non-executive Board level. We also report across our global businesses, functions and markets to help ensure appropriate visibility and governance of the risk and mitigating actions.
- We continue to obtain information about tactics employed by cybercrime groups and to collaborate in fighting, detecting and preventing cyber-attacks on financial organisations.

Financial Crime Risk

(unaudited)

Financial institutions remain under considerable regulatory scrutiny regarding their ability to detect and prevent financial crime. In 2024, these risks continued to be exacerbated by rising geopolitical tensions and ongoing macroeconomic factors. These challenges require managing conflicting laws and approaches to legal and regulatory regimes, and implementing increasingly complex and less predictable sanctions and trade restrictions.

Amid increasing cost of living pressures, we continue to face increasing regulatory expectations with respect to managing internal and external fraud and protecting customers. The accessibility and increasing sophistication of generative AI brings additional financial crime risks. While there is potential for the technology to support financial crime detection, there is also a risk that criminals use generative AI to perpetrate fraud, particularly scams.

The digitisation of financial services continues to have an impact on the payments ecosystem, with an increasing number of new market entrants and payment mechanisms, not all of which are subject to the same level of regulatory scrutiny or regulations as banks. Developments around digital assets and currencies have continued at pace, with an increasing regulatory and enforcement focus on the financial crimes linked to these types of assets.

The intersection of ESG issues and financial crime continues to pose risks related to potential 'greenwashing', human rights issues and environmental crime, as our organisation, customers and suppliers transition to net zero. In addition, climate change itself could heighten risks linked to vulnerable migrant populations in countries where financial crime is already more prevalent.

We also continue to face increasing challenges presented by national data privacy requirements, which may affect our ability to manage financial crime risks across markets.

Mitigating actions

- We continue to seek to manage sanctions and trade restrictions through the use of reasonably designed policies, procedures and controls, which are subject to ongoing testing, auditing and enhancements.
- We continue to develop our fraud controls and invest in capabilities to fight financial crime through the application of advanced analytics and AI, while monitoring technological developments and engaging with third parties.
- We continue to look at the impact of a rapidly changing payments ecosystem, as well as risks associated with direct and indirect exposure to digital assets and currencies, in an effort to maintain appropriate financial crime controls.
- We regularly review our existing policies and control framework so that developments relating to ESG are considered and the financial crime risks are mitigated to the extent possible.
- We engage with regulators and policymakers seeking to address data privacy challenges through international standards, guidance, and legislation.

Climate related risk

(unaudited)

We are exposed to several risks resulting from climate change and the move to a net zero economy:

- We may face credit losses if our customers' business models fail to align to a net zero economy, or if our customers face disruption to their operations or a deterioration to their assets as a result of extreme weather.
- We may face trading losses if climate change results in changes to macroeconomic and financial variables that negatively impact our trading book exposures.
- We may face liquidity impacts in the form of deposit outflows due to changes in customer behaviours driven by impacts to profitability/wealth, or due to reputational concerns relating to the progress we make towards our climate-related ambitions.
- We may face impacts from physical risk on our own operations and premises, owing to the increase in frequency and severity of weather events and chronic shifts in weather patterns, which could affect our ability to conduct our day-to-day operations.
- We may face increased reputational, legal, regulatory compliance and financial risks if we fail to make sufficient progress towards our climate ambitions, or if we fail to meet evolving regulatory expectations and requirements on climate risk management, or if we knowingly or unknowingly make inaccurate, unclear, misleading, or unsubstantiated claims regarding sustainability to our stakeholders.
- We may face financial reporting risk in relation to our climate-related disclosures, as any data, methodologies and reporting standards we have used may evolve over time in line with market practice, regulation or developments in science. We may also face the risk of making reporting errors due to issues relating to the availability, accuracy and verifiability of data, and system, process and control challenges. Any changes and reporting errors could result in revisions to our internal frameworks and reported data, and could mean that reported figures are not reconcilable or comparable year on year. We may also have to re-evaluate our progress towards our climate-related ambitions in future.
- We may face model risk, as the uncertain and evolving impacts of climate change and data and methodology limitations present challenges to creating reliable and accurate model outputs.

Mitigating actions

- We continue to support the development of our climate risk management capabilities across four key pillars – governance and risk appetite, risk management, stress testing and scenario analysis, and disclosures. We continue to enhance our approach and mitigation to the risk of greenwashing.
- In July 2024, the energy policy has been updated covering the broader energy system including upstream oil and gas, oil and gas power generation, coal, hydrogen, renewables and hydropower, nuclear, biomass and energy from waste. In January 2024 the thermal coal phase-out policy has been updated, which aims to drive thermal coal phase-out aligned to science-based timeframes. A risk-based approach has been taken when identifying transactions and clients to which the policies apply and adopting approaches proportionate to risk and materiality.
- The scope of our financial reporting risk framework includes oversight over the accuracy and completeness of ESG and climate-related disclosures. Our internal controls incorporate requirements for addressing the risk of misstatement in climate-related and broader ESG disclosures. To support this, we have adopted HSBC Group framework which guide control implementation over climate-related and broader ESG disclosures, which includes areas such as process and data governance, and risk assessment.
- We continue to engage with our customers, investors and regulators proactively on the management of climate related risks.

Our material banking and insurance risks

The material risk types associated with our banking and insurance manufacturing operations are described in the following tables.

Description of risks – banking operations

(unaudited)

Risks	Arising from	Measurement, monitoring and management of risk
Credit risk		
Credit risk is the risk of financial loss if a customer or counterparty fails to meet an obligation under a contract.	Credit risk arises principally from direct lending, trade finance and leasing business, but also from certain other products such as guarantees and derivatives.	Credit risk is: – measured as the amount which could be lost if a customer or counterparty fails to make repayments; – monitored within limits, approved by individuals within a framework of delegated authorities; and – managed through a robust risk control framework which outlines clear and consistent policies, principles and guidance for risk managers, and by setting limits and appetite across geographical markets, portfolios or sectors.
Treasury risk		
Treasury risk is the risk of having insufficient capital, liquidity or funding resources to meet financial obligations and satisfy regulatory requirements, including the risk of adverse impact on earnings or capital due to foreign exchange exposures and changes in market interest rates, together with pensions risk.	Treasury risk arises from changes to the respective resources and risk profiles driven by customer behaviour, management decisions, or the external environment.	Treasury risk is: – measured through risk appetite and more granular limits, set to provide an early warning of increasing risk, minimum ratios of relevant regulatory metrics, and metrics to monitor the key risk drivers impacting treasury resources; – monitored and projected against appetites and by using operating plans based on strategic objectives together with stress and scenario testing; and – managed through control of resources in conjunction with risk profiles, strategic objectives and cash flows.
Market risk		
Market risk is the risk of an adverse financial impact on trading activities arising from changes in market parameters such as interest rates, foreign exchange rates, asset prices, volatilities, correlations and credit spreads.	Market risk arises from both trading portfolios and non-trading portfolios. Market risk for non-trading portfolios is discussed in the 'Treasury risk' section. Market risk exposures arising from our insurance operations are discussed in 'Insurance manufacturing operation risk' section.	Market risk is: – measured using sensitivities, value at risk ('VaR') and stress testing, giving a detailed picture of potential gains and losses for a range of market movements and scenarios, as well as tail risks over specified time horizons; – monitored using VaR, stress testing and other measures; and – managed using risk limits approved by Chief Risk and Compliance Officer.
Climate risk		
Climate risk relates to the financial and non-financial impacts that may arise as a result of climate change and the move to a net zero economy.	Climate risk is likely to materialise through: – physical risk, which arises from the increased frequency and severity of weather events; – transition risk, which arises from the process of moving to a low-carbon economy;	Climate risk is: – measured using risk metrics and stress testing; – monitored against risk appetite statements; and – managed through adherence to risk appetite thresholds through specific policies, and through enhancements to processes and development of tools and the development of portfolio steering capabilities to manage the net zero commitments.

Our material banking and insurance risks continued

Description of risks – banking operations continued

(unaudited)

Risks	Arising from	Measurement, monitoring and management of risk
Climate risk continued		
	– net zero alignment risk, which arises from failing to meet HSBC Group's net zero commitments or to meet external expectations related to net zero because of inadequate ambition and/or plans, poor execution, or inability to adapt to changes in the external environment; and – risk of greenwashing, which arises from the act of knowingly or unknowingly making inaccurate, unclear, misleading or unsubstantiated claims regarding sustainability to stakeholders.	
Resilience risk		
Resilience risk is the risk that we are unable to provide critical services to our customers, affiliates and counterparties as a result of sustained and significant operational disruption.	Resilience risk arises from failures or inadequacies in processes, people, systems or external events.	Resilience risk is: – measured through a range of metrics with defined maximum acceptable impact tolerances, and against our agreed risk appetite; – monitored through oversight of enterprise processes, risks, controls and strategic change programmes; and – managed by continual monitoring and thematic reviews.
Regulatory compliance risk		
Regulatory compliance risk is the risk associated with breaching our duty to clients and other counterparties, inappropriate market conduct (including unauthorised trading) and breaching related financial services regulatory standards.	Regulatory compliance risk arises from the failure to observe the relevant laws, codes, rules and regulations and can manifest itself in poor market or customer outcomes and lead to fines, penalties and reputational damage to our business.	Regulatory compliance risk is: – measured by reference to risk appetite, identified metrics, incident assessments, regulatory feedback and the judgement and assessment of our regulatory compliance teams; – monitored against the first line of defence risk and control assessments, the results of the monitoring and control assurance activities of the second line of defence functions, and the results of internal audits and regulatory inspections; and – managed by establishing and communicating appropriate policies and procedures, training employees in them, and monitoring activity to help ensure their observance. Proactive risk control and/or remediation work is undertaken where required.
Financial crime risk		
Financial crime risk is the risk that the Group's products and services will be exploited for criminal activity. This includes fraud, bribery and corruption, tax evasion, sanctions and export control violations, money laundering, terrorist financing and proliferation financing.	Financial crime risk arises from day-to-day banking operations involving customers, third parties and employees.	Financial crime risk is: – measured by reference to risk appetite, identified metrics, incident assessments, regulatory feedback and the judgement and assessment of our financial crime risk teams; – monitored against the first line of defence risk and control assessments, the results of the monitoring and control assurance activities of the second line of defence functions, and the results of internal audits and regulatory inspections; and – managed by establishing and communicating appropriate policies and procedures, training employees in them and monitoring activity to help ensure their observance. Proactive risk control and/or remediation work is undertaken where required.

Our material banking and insurance risks continued

Description of risks – banking operations continued

(unaudited)

Risks	Arising from	Measurement, monitoring and management of risk
Model risk		
Model risk is the potential for adverse consequences from model errors or the inappropriate use of modelled outputs to inform business decisions.	Model risk arises in both financial and non-financial contexts whenever business decision making includes reliance on models.	Model risk is: – measured by reference to model performance tracking and the output of detailed technical reviews, with key metrics including model review statuses and findings; – monitored against model risk appetite statements, insight from the independent validations completed by the model risk management team, feedback from internal audits, and regulatory reviews; and – managed by creating and communicating appropriate policies, procedures and guidance, training colleagues in their application, and supervising their adoption to ensure operational effectiveness.

Description of risks – insurance manufacturing operations

(unaudited)

Our insurance manufacturing subsidiary is separately regulated from our banking operations. Risks in the insurance entities are managed using methodologies and processes appropriate to insurance manufacturing operations, but remain subject to oversight at Group level. Our insurance operations are also subject to some of the same risks as our banking operations, which are covered by the Group's respective risk management processes.

Risks	Arising from	Measurement, monitoring and management of risk
Insurance underwriting risk		
Insurance underwriting risk is the risk that, over time, the cost of acquiring and administering an insurance contract, and paying claims and benefits may exceed the total amount of premiums received and investment income.	The cost of claims and benefits can be influenced by many factors, including mortality and morbidity experience, as well as lapse and surrender rates.	Insurance underwriting risk is: – measured in terms of life insurance liabilities and economic capital allocated to insurance underwriting risk; – monitored through a framework of approved limits and delegated authorities; and – managed through a robust risk control framework which outlines clear and consistent policies, principles and guidance. This includes using product design, underwriting, reinsurance and claims-handling procedures.
Financial risk		

Financial risk includes the risk of not being able to match liabilities arising under insurance contracts with appropriate investments and that the expected sharing of financial performance with policyholders under certain contracts is not possible.	Exposure to financial risks arises from:
	– market risk of changes in the fair values of financial assets or their future cash flows;
	– credit risk; and
	– liquidity risk of entities being unable to make payments to policyholders as they fall due.
		Financial risk is:
		– measured separately for each type of risk:
		  – market risk is measured in terms of economic capital, internal metrics and fluctuations in key financial variables;
		  – credit risk is measured in terms of economic capital and the amount that could be lost if a counterparty fails to make repayments; and
		  – liquidity risk is measured in terms of internal metrics including stressed operational cash flow projections;
		– monitored through a framework of approved limits and delegated authorities; and
		– managed through a robust risk control framework, which outlines clear and consistent policies, principles and guidance. This includes using product design, asset liability matching and bonus rates.

The following information describes the Group's management and control of risks, in particular, those associated with its use of financial instruments ('financial risks'). Major types of risks to which the Group is exposed include credit risk, treasury risk, market risk, climate risk, resilience risk, regulatory compliance risk, financial crime risk, model risk, and insurance risk.

(a) Credit Risk

Overview

Credit risk is the risk of financial loss if a customer or counterparty fails to meet an obligation under a contract. Credit risk arises principally from direct lending, trade finance and leasing business, but also from certain other products, such as guarantees and derivatives.

Credit risk management

Key developments in 2024

(unaudited)

There were no material changes to the policies and practices for the management of credit risk in 2024. We continued to apply the requirements of HKFRS 9 *'Financial Instruments'* within Credit Risk sub-function.

We actively managed the risks related to macroeconomic uncertainties, including interest rate, inflation, fiscal and monetary policy and broader geopolitical uncertainties and conflicts.

Governance and structure

(unaudited)

We have established credit risk management and related HKFRS 9 processes throughout the Group. We continue to assess the impact of economic developments in key markets on specific customers, customer segments or portfolios. As credit conditions change, we take mitigating action, including the revision of risk appetites or limits and tenors, as appropriate. In addition, we continue to evaluate the terms under which we provide credit facilities within the context of individual customer requirements, the quality of the relationship, local regulatory requirements, market practices and our local market position.

Credit risk sub-function

(audited)

With the delegation from the Board, credit approval authorities are delegated to the Executive Committee and to the Chief Executive together with the authority to sub-delegate them. The Credit Risk sub-function is responsible for the key policies and processes for managing credit risk, which include formulating the Group's credit policies and risk rating frameworks, guiding the Group's appetite for credit risk exposures, undertaking independent reviews and objective assessment of credit risk, and monitoring performance and management of portfolios.

The principal objectives of our credit risk management are:

- to maintain across the Group a strong culture of responsible lending, and robust risk policies and control frameworks;
- to both partner and challenge our businesses in defining, implementing and continually re-evaluating our risk appetite under actual and scenario conditions; and
- to ensure there is independent, expert scrutiny of credit risks, their causes and their mitigation.

Key risk management processes

HKFRS 9 'Financial Instruments' process

(unaudited)

The HKFRS 9 process comprises three main areas: modelling and data; implementation; and governance.

Modelling and data

(unaudited)

We have established HKFRS 9 modelling and data processes in various geographies, which are subject to internal model risk governance including independent review of significant model developments.

We have a centralised process for generating unbiased and independent global economic scenarios. Scenarios are subject to a process of review and challenge by HSBC Group as well as the Bank. Each quarter, the scenarios and probability weights are reviewed and checked for consistency with the economic conjuncture and current economic and financial risks. These are subject to final review and approval by senior management in our Impairment Committee.

(a) Credit Risk

Credit risk management continued

Key risk management processes continued

Implementation

(unaudited)

A centralised impairment engine performs the expected credit losses ('ECL') calculation using data, which is subject to a number of validation checks and enhancements, from a variety of client, finance and risk systems. Where possible, these checks and processes are performed in a globally consistent and centralised manner within HSBC Group.

Governance

(unaudited)

Management review forums are established in order to review and approve the impairment results. Management review forums have representatives from Business, Credit Risk and Finance. The approvals are subsequently reported up to the Impairment Committee for final approval of the Group's ECL for the period. Required members of the Impairment Committee are the Chief Risk and Compliance Officer, the Chief Financial Officer and the Chief Accounting Officer, as well as the Head of Wholesale Credit Risk Management and the Head of Wealth and Personal Banking Risk.

Concentration of exposure

(audited)

Concentrations of credit risk arise when a number of counterparties or exposures that have comparable economic characteristics, or such counterparties are engaged in similar activities or operate in the same geographical areas or industry sectors. As such that their collective ability to meet contractual obligations is uniformly affected by changes in economic, political or other conditions. We use a number of controls and measures to minimise undue concentration of exposure in our portfolios across industries, countries and businesses. These include portfolio and counterparty limits, approval and review controls, and stress testing.

Credit quality of financial instruments

(audited)

Our risk rating system facilitates the internal ratings-based approach under the Basel framework adopted by the Group to support the calculation of our minimum credit regulatory capital requirement.

The five credit quality classifications each encompass a range of granular internal credit rating grades assigned to wholesale customers and retail facilities.

For debt securities and certain other financial instruments, external ratings have been aligned to the five quality classifications based upon the mapping of related customer risk rating ('CRR') to external credit rating.

Wholesale lending

(unaudited)

A CRR 10-grade scale summarises a more granular underlying 23-grade scale of obligor probability of default ('PD'). All corporate customers are rated using the 10 or 23-grade scale, depending on the degree of sophistication of the Basel approach adopted for the exposure.

Each CRR band is associated with an external rating grade by reference to long-run default rates for that grade, represented by the average of issuer-weighted historical default rates. This mapping between internal and external ratings is indicative and may vary over time.

Retail lending

(unaudited)

Retail lending credit quality is based on a 12-month probability-weighted PD.

(a) Credit Risk

Credit risk management continued

Key risk management processes continued

Credit quality classification

(unaudited)

	Sovereign debt securities and bills	Other debt securities and bills	Wholesale lending		Retail lending	
Credit Quality classification[1,2]	External credit rating	External credit rating	Internal credit rating	12-month Basel probability of default %	Internal credit rating	12-month probability-weighted PD %
Strong	BBB and above	A- and above	CRR1 to CRR2	0-0.169	Band 1 and 2	0-0.500
Good	BBB- to BB	BBB+ to BBB-	CRR3	0.170-0.740	Band 3	0.501-1.500
Satisfactory	BB- to B and unrated	BB+ to B and unrated	CRR4 to CRR5	0.741-4.914	Band 4 and 5	1.501-20.000
Sub-standard	B- to C	B- to C	CRR6 to CRR8	4.915-99.999	Band 6	20.001-99.999
Credit-impaired	Default	Default	CRR9 to CRR10	100	Band 7	100

1 Customer risk rating ('CRR').

2 12-month point-in-time ('PIT') probability-weighted probability of default ('PD').

Quality classification definitions:

- Strong exposures demonstrate a strong capacity to meet financial commitments, with negligible or low probability of default and/or low levels of expected loss.
- Good exposures require closer monitoring and demonstrate a good capacity to meet financial commitments, with low default risk.
- Satisfactory exposures require closer monitoring and demonstrate an average-to-fair capacity to meet financial commitments, with moderate default risk.
- Sub-standard exposures require varying degrees of special attention and default risk is of greater concern.
- Credit-impaired exposures have been assessed as described on note 2(j) on the Consolidated Financial Statements.

Forborne loans and forbearance

(audited)

Forbearance measures consist of concessions towards an obligor that is experiencing or is about to experience difficulties in meeting its financial commitments.

We continue to classify loans as forborne when we modify the contractual payment terms due to having significant concerns about the borrowers' ability to meet contractual payments when they were due. Our definition of forborne captures non-payment-related concessions, such as covenant waivers.

For details of our policy on derecognition of forborne loans, see note 2(j) on the Consolidated Financial Statements.

Credit quality of forborne loans

(unaudited)

For wholesale lending, where payment-related forbearance measures result in a diminished financial obligation, or if there are other indicators of impairment, the loan will be classified as credit impaired if it is not already so classified. All facilities with a customer, including loans that have not been modified, are considered credit impaired following the identification of a payment-related forborne loan. For retail lending, where a material payment-related concession has been granted, the loan will be classified as credit impaired.

(a) Credit Risk

Credit risk management continued

Key risk management processes continued

Credit quality of forborne loans continued

(unaudited)

In isolation, non-payment forbearance measures may not result in the loan being classified as credit impaired unless combined with other indicators of credit impairment. These are classed as performing forborne loans for both wholesale and retail lending.

Wholesale and retail lending forborne loans are classified as credit-impaired until there is sufficient evidence to demonstrate a significant reduction in the risk of non-payment of future cash flows, observed over a minimum one-year period, and there are no other indicators of impairment. Any forborne loans not considered credit-impaired will remain forborne for a minimum of two years from the date that credit impairment no longer applies. For wholesale and retail lending, any forbearance measures granted on a loan still classified as forborne and not cure results in the customer being classified as credit impaired.

Forborne loans and recognition of expected credit losses

(audited)

Forborne loans expected credit loss assessments reflect the higher rates of losses typically experienced with these types of loans such that they are in stage 2 or stage 3. The higher rates are more pronounced in unsecured retail lending requiring further segmentation. For wholesale lending, forborne loans are typically assessed individually. Credit risk ratings are intrinsic to the impairment assessments. The individual impairment assessment takes into account the higher risk of the future non-payment inherent in forborne loans.

Impairment assessment

(audited)

For details of our impairment policies on loans and advances and financial investments, see note 2(j) on the Consolidated Financial Statements.

Write-off of loans and advances

(audited)

For our policy on the write-off of loans and advances, see note 2(j) on the Consolidated Financial Statements.

Under the HKFRS 9 standard, write-off should occur when there is no reasonable expectation of recovering further cash flows from the financial asset. This principle does not prohibit early write-off which is defined in local policies to ensure effectiveness in the management of customers in the collections process.

Unsecured personal facilities, including credit cards, are generally written off at 180 days contractually delinquent. Write-off periods may be earlier, e.g. bankruptcy.

However, in exceptional circumstances, to avoid unfair customer outcomes, deliver customer duty or meet regulatory expectations, the period may be extended further.

For secured personal facilities, write-off should occur upon repossession of collateral, receipt of proceeds via settlement, or determination that recovery of the collateral will not be pursued. In circumstances where the net realisable value of any collateral has been determined and there is no reasonable expectation of further recovery, write off may be earlier.

Any secured assets maintained on the balance sheet beyond 60 months of consecutive delinquency-driven default or unsecured facilities that exceed 180 days require additional monitoring and review to assess the prospect of recovery. Collection procedures may continue after write-off.

Wholesale facilities are to be fully written off when, after realisation of any available security, there is no realistic prospect of further recoveries. Partial write-offs may be made where appropriate. Any portion of an instrument that is not covered by security should be written off when there is no realistic prospect of further recovery, and final write-off should occur upon receipt of proceeds following the realisation of security. Recovery activity may continue after write-off.

(a) Credit Risk

The following table provides an overview of the Group's credit risk by stage and industry, and the associated ECL coverage. The financial assets recorded in each stage have the following characteristics:

Stage 1: These financial assets are unimpaired and without significant increase in credit risk on which a 12-month allowance for ECL is recognised.

Stage 2: A significant increase in credit risk has been experienced on these financial assets since initial recognition for which a lifetime ECL is recognised.

Stage 3: There is objective evidence of impairment and the financial assets are therefore considered to be in default or otherwise credit-impaired on which a lifetime ECL is recognised.

POCI: Financial assets that are purchased or originated at a deep discount are seen to reflect the incurred credit losses on which a lifetime ECL is recognised.

Summary of credit risk (excluding debt instruments measured at FVOCI) by stage distribution and ECL coverage

(audited)

	Gross carrying/ nominal amount[1]					Allowance for ECL					ECL coverage (%)				
	Stage 1	Stage 2	Stage 3	POCI[2]	Total	Stage 1	Stage 2	Stage 3	POCI	Total	Stage 1	Stage 2	Stage 3	POCI	Total
Loans and advances to customers at amortised cost	706,478	74,667	50,822	142	832,109	(683)	(2,472)	(9,764)	(54)	(12,973)	0.10%	3.31%	19.21%	38.03%	1.56%
– personal	373,719	11,418	1,220	–	386,357	(355)	(922)	(209)	–	(1,486)	0.09%	8.07%	17.13%	N/A	0.38%
– corporate and commercial	298,586	63,184	49,602	142	411,514	(291)	(1,550)	(9,555)	(54)	(11,450)	0.10%	2.45%	19.26%	38.03%	2.78%
– non-bank financial institutions	34,173	65	–	–	34,238	(37)	–	–	–	(37)	0.11%	0.00%	N/A	N/A	0.11%
Placings with and advances to banks at amortised cost	76,007	216	–	–	76,223	(2)	–	–	–	(2)	0.00%	0.00%	N/A	N/A	0.00%
Other financial assets measured at amortised cost	201,352	1,078	6	–	202,436	(20)	(3)	–	–	(23)	0.01%	0.28%	0.00%	N/A	0.01%
Loans and other credit-related commitments	336,998	13,135	181	–	350,314	(65)	(61)	–	–	(126)	0.02%	0.46%	0.00%	N/A	0.04%
– personal	241,539	4,998	5	–	246,542	(5)	–	–	–	(5)	0.00%	0.00%	0.00%	N/A	0.00%
– corporate and commercial	81,378	8,137	176	–	89,691	(57)	(61)	–	–	(118)	0.07%	0.75%	0.00%	N/A	0.13%
– non-bank financial institutions	14,081	–	–	–	14,081	(3)	–	–	–	(3)	0.02%	N/A	N/A	N/A	0.02%
Financial guarantee and similar contracts	1,550	348	–	–	1,898	(1)	(2)	–	–	(3)	0.06%	0.57%	N/A	N/A	0.16%
– personal	1	–	–	–	1	–	–	–	–	–	0.00%	N/A	N/A	N/A	0.00%
– corporate and commercial	1,161	348	–	–	1,509	(1)	(2)	–	–	(3)	0.09%	0.57%	N/A	N/A	0.20%
– non-bank financial institutions	388	–	–	–	388	–	–	–	–	–	0.00%	N/A	N/A	N/A	0.00%
At 31 December 2024	1,322,385	89,444	51,009	142	1,462,980	(771)	(2,538)	(9,764)	(54)	(13,127)	0.06%	2.84%	19.14%	38.03%	0.90%

1 Represents the maximum amount at risk should the contracts be fully drawn upon and clients default.

2 Purchased or originated credit-impaired ('POCI').

Unless identified at an earlier stage, all financial assets are deemed to have suffered a significant increase in credit risk when they are 30 days past due ('DPD') and are transferred from stage 1 to stage 2. The disclosure below presents the aging of stage 2 loans and advances to customers by those less than 30 and greater than 30 days past due and therefore presents those amounts classified as stage 2 due to aging (30 days past due) and those identified at an earlier stage (less than 30 days past due).

(a) Credit Risk

Summary of credit risk (excluding debt instruments measured at FVOCI) by stage distribution and ECL coverage continued

(audited)

Stage 2 days past due analysis for loans and advances to customers

(audited)

	At 31 December 2024											
	Gross carrying amount				Allowance for ECL				ECL coverage %			
	Stage 2	Of which: Up-to-date	Of which: 1 to 29 DPD[1]	Of which: 30 and > DPD	Stage 2	Of which: Up-to-date	Of which: 1 to 29 DPD	Of which: 30 and > DPD	Stage 2	Of which: Up-to-date	Of which: 1 to 29 DPD	Of which: 30 and > DPD
Loans and advances to customers at amortised cost												
– personal	11,418	8,405	1,918	1,095	(922)	(701)	(74)	(147)	8.07%	8.34%	3.86%	13.42%
– corporate and commercial	63,184	62,769	362	53	(1,550)	(1,538)	(11)	(1)	2.45%	2.45%	3.04%	1.89%
– non-bank financial institutions	65	65	–	–	–	–	–	–	0.00%	0.00%	N/A	N/A
	74,667	71,239	2,280	1,148	(2,472)	(2,239)	(85)	(148)	3.31%	3.14%	3.73%	12.89%

1 Days past due ('DPD').

	Gross carrying/ nominal amount[1]					Allowances for ECL					ECL coverage (%)				
	Stage 1	Stage 2	Stage 3	POCI[2]	Total	Stage 1	Stage 2	Stage 3	POCI	Total	Stage 1	Stage 2	Stage 3	POCI	Total
Loans and advances to customers at amortised cost	713,524	135,766	24,632	117	874,039	(709)	(3,766)	(9,158)	–	(13,633)	0.10%	2.77%	37.18%	0.00%	1.56%
– personal	378,928	20,150	829	–	399,907	(337)	(1,219)	(150)	–	(1,706)	0.09%	6.05%	18.09%	N/A	0.43%
– corporate and commercial	305,400	114,533	23,803	117	443,853	(335)	(2,542)	(9,008)	–	(11,885)	0.11%	2.22%	37.84%	0.00%	2.68%
– non-bank financial institutions	29,196	1,083	–	–	30,279	(37)	(5)	–	–	(42)	0.13%	0.46%	N/A	N/A	0.14%
Placings with and advances to banks at amortised cost	83,707	53	–	–	83,760	(4)	–	–	–	(4)	0.00%	0.00%	N/A	N/A	0.00%
Other financial assets measured at amortised cost	170,288	1,657	70	–	172,015	(41)	(3)	(15)	–	(59)	0.02%	0.18%	21.43%	N/A	0.03%
Loans and other credit-related commitments	326,835	19,094	3	–	345,932	(84)	(71)	–	–	(155)	0.03%	0.37%	0.00%	N/A	0.04%
– personal	237,408	7,678	3	–	245,089	(4)	–	–	–	(4)	0.00%	0.00%	0.00%	N/A	0.00%
– corporate and commercial	68,626	10,609	–	–	79,235	(70)	(69)	–	–	(139)	0.10%	0.65%	N/A	N/A	0.18%
– non-bank financial institutions	20,801	807	–	–	21,608	(10)	(2)	–	–	(12)	0.05%	0.25%	N/A	N/A	0.06%
Financial guarantee and similar contracts	1,240	642	–	–	1,882	(1)	(3)	–	–	(4)	0.08%	0.47%	N/A	N/A	0.21%
– personal	1	5	–	–	6	–	–	–	–	–	0.00%	0.00%	N/A	N/A	0.00%
– corporate and commercial	849	637	–	–	1,486	(1)	(3)	–	–	(4)	0.12%	0.47%	N/A	N/A	0.27%
– non-bank financial institutions	390	–	–	–	390	–	–	–	–	–	0.00%	N/A	N/A	N/A	0.00%
At 31 December 2023	1,295,594	157,212	24,705	117	1,477,628	(839)	(3,843)	(9,173)	–	(13,855)	0.06%	2.44%	37.13%	0.00%	0.94%

1 Represents the maximum amount at risk should the contracts be fully drawn upon and clients default.

2 Purchased or originated credit-impaired ('POCI').

(a) Credit Risk

Summary of credit risk (excluding debt instruments measured at FVOCI) by stage distribution and ECL coverage continued

(audited)

Unless identified at an earlier stage, all financial assets are deemed to have suffered a significant increase in credit risk when they are 30 days past due ('DPD') and are transferred from stage 1 to stage 2. The disclosure below presents the aging of stage 2 loans and advances to customers by those less than 30 and greater than 30 days past due and therefore presents those amounts classified as stage 2 due to aging (30 days past due) and those identified at an earlier stage (less than 30 days past due).

Stage 2 days past due analysis for loans and advances to customers

(audited)

	At 31 December 2023											
	Gross carrying amount				Allowance for ECL				ECL coverage (%)			
	Stage 2	Of which: Up-to-date	Of which: 1 to 29 DPD[1]	Of which: 30 and > DPD	Stage 2	Of which: Up-to-date	Of which: 1 to 29 DPD	Of which: 30 and > DPD	Stage 2	Of which: Up-to-date	Of which: 1 to 29 DPD	Of which: 30 and > DPD
Loans and advances to customers at amortised cost												
– personal	20,150	17,055	2,042	1,053	(1,219)	(1,030)	(76)	(113)	6.05%	6.04%	3.72%	10.73%
– corporate and commercial	114,533	114,159	292	82	(2,542)	(2,536)	(5)	(1)	2.22%	2.22%	1.71%	1.22%
– non-bank financial institutions	1,083	1,083	–	–	(5)	(5)	–	–	0.46%	0.46%	N/A	N/A
	135,766	132,297	2,334	1,135	(3,766)	(3,571)	(81)	(114)	2.77%	2.70%	3.47%	10.04%

[1] Days past due ('DPD').

Maximum exposure to credit risk before collateral held or other credit enhancements

(audited)

Our credit exposure is spread across a broad range of asset classes, including but not limited to derivatives, trading assets, loans and advances and financial investments. The following table presents the maximum exposure to credit risk from balance sheet and off-balance sheet financial instruments, before taking account of any collateral held or other credit enhancements (unless such credit enhancements meet accounting offsetting requirements). For financial assets recognised on the balance sheet, the maximum exposure to credit risk equals their carrying amount; for financial guarantees and similar contracts granted, it is the maximum amount that we would have to pay if the guarantees were called upon. For loan commitments and other credit-related commitments, it is generally the full amount of the committed facilities.

	2024	2023
Cash and balances at central banks	**10,433**	10,564
Trading assets	**39,613**	43,985
Derivative financial instruments	**20,201**	14,959
Financial assets mandatorily measured at fair value through profit or loss	**114,368**	119,784
Reverse repurchase agreements - non-trading	**33,479**	30,202
Placings with and advances to banks	**76,221**	83,756
Loans and advances to customers	**819,136**	860,406
Financial investments	**536,745**	401,732
Other assets	**28,815**	30,999
Financial guarantees and other credit related contingent liabilities[1]	**22,848**	22,969
Loan commitments and other credit related commitments	**495,092**	503,632
	2,196,951	2,122,988

[1] Performance and other guarantees were included.

(a) Credit Risk

Measurement uncertainty and sensitivity analysis of ECL estimates

(audited)

The recognition and measurement of ECL involve the use of significant judgement and estimation. We form multiple economic scenarios based on economic forecasts, apply these assumptions to credit risk models to estimate future credit losses, and probability-weight the results to determine an unbiased ECL estimate.

Management assessed the current economic environment, reviewed the latest economic forecasts and discussed key risks before selecting the economic scenarios and their weightings.

The Central scenario is constructed to reflect the latest macroeconomic expectations. Outer scenarios incorporate the crystallisation of economic and geopolitical risks, including a more severe escalation in global tariff rates and an escalation in geopolitical tensions that drive supply chain disruptions.

Management judgemental adjustments are used to address late breaking events, data and model limitations, model deficiencies and expert credit judgements where ECL does not fully reflect the identified risks and related uncertainty. At 31 December 2024, there was an overall reduction in management judgemental adjustments compared with 31 December 2023, as modelled outcomes better reflected the key risks at 31 December 2024.

Methodology

At 31 December 2024, four scenarios were used to capture the latest economic expectations and to articulate management's view of the range of risks and potential outcomes. Each scenario is updated with the latest economic forecasts and distributional estimates every quarter.

Three scenarios, the Upside, Central and Downside, are drawn from consensus forecasts, market data and distributional estimates of the entire range of economic outcomes. The fourth scenario, the Downside 2, represents management's view of severe downside risks. Consensus estimates are deployed as conditioning variables in a proprietary expansion of the scenario variables.

The Central scenario is deemed the 'most likely' scenario, and usually attracts the largest probability weighting. It is created using consensus forecasts, which is the average of a panel of external forecasts.

The outer scenarios represent the tails of the distribution and are less likely to occur. The Consensus Upside and Downside scenarios are created with reference to forecast probability distributions for select markets that capture economists' views of the entire range of economic outcomes. In the later years of those scenarios, projections revert to long-term consensus expectations. Reversion to trend expectations is done with reference to historically observed quarterly changes in the values of macroeconomic variables.

The fourth scenario, Downside 2, is designed to represent management's view of severe downside risks. Consistent with HSBC Group globally, it is a narrative-driven scenario that explores a more extreme economic outcome than those captured by the consensus scenarios. In this scenario, variables do not, by design, revert to long-term trend expectations and may instead explore alternative states of equilibrium, where economic activity moves permanently away from past trends.

The consensus Downside and the consensus Upside scenarios are each constructed to be consistent with a 10% probability. The Downside 2 is constructed to a 5% probability. The Central scenario is assigned the remaining 75% probability. This weighting scheme is deemed appropriate for the unbiased estimation of ECL in most circumstances. However, management may depart from this probability-based scenario weighting approach when the economic outlook and forecasts are determined to be particularly uncertain and risks are elevated.

For the fourth quarter of 2024, consensus forecasts and distributional estimates were assessed to inadequately reflect the consequences of the US election on the global economic outlook. Forecasts lag and there is increased uncertainty as to how economic policy will change and how tariffs will be implemented. Scenarios were constructed using the standard methodology, as described, before an adjustment, to account for policy changes, was subsequently applied. The adjustment is based on a modelled update to the Central scenario and incorporated a detailed narrative of US economic policy proposals, including specific tariff rates. The modelled results were then layered onto the Central scenario which resulted in changes to most variables. To quantify, the adjustment reduces GDP growth in our key markets in the first two years of the Central scenario forecast. Outer scenarios have been shifted in parallel.

(a) Credit Risk

Measurement uncertainty and sensitivity analysis of ECL estimates continued

(audited)

Methodology continued

The scenario adjustment entailed no change in scenario probability weights, which remained in-line with the Forward Economic Guidance ('FEG') framework. Uncertainty relating to the policy outlook have been addressed in the scenarios directly. Measures of dispersion and uncertainty have remained low but may reflect lags in the consensus economic forecasting process.

Scenarios produced to calculate ECL are aligned to the Group's top and emerging risks.

Description of Economic Scenarios

The economic assumptions presented in this section have been formed by HSBC Group with reference to external forecasts and estimates, specifically for the purpose of calculating ECL.

Forecasts may change and remain subject to uncertainty. Outer scenarios are designed to capture potential crystallisation of key economic and financial risks and alternative paths for economic variables.

In our key markets, Central scenario incorporate potential impacts from anticipated changes to US economic and trade policy, including higher tariffs. The overall effect of the adjustment in our key markets is to lower GDP and unemployment estimates, relative to the consensus. Consequently, GDP growth and unemployment forecasts have deteriorated in the fourth quarter of 2024, compared with the fourth quarter of 2023. With regard to monetary policy, the expectations path for interest rates in our key market are based on market futures.

At the end of 2024, risks to the economic outlook included a number of significant geopolitical issues. Within our downside scenarios, the economic consequences from the crystallisation of those risks are captured by higher commodity and goods prices, the re-acceleration of inflation, a further rise in interest rates and a global recession.

The scenarios used to calculate ECL in the 2024 Annual Report are described below.

The consensus Central scenario

The Central scenario reflects expectations for slower growth and high inflation and unemployment across our key markets.

Expectation of lower GDP growth in many markets in 2025 are driven by the assumed effects of higher tariffs, which impede trade flows and deter investment. In the scenario, the US applies tariffs on key trading partners, focusing on mainland China at the outset of the new administration's term, before moving attention to other trading partners. Countries are expected to respond in-kind. As a direct consequence of tariffs, trade growth is reduced, which in turn weighs on GDP growth. Mainland China and Hong Kong experience the greatest negative consequences given the interlinkages with the US economy. Indirect consequences from tariffs dampen growth elsewhere. Tariffs, or the threat of them, increases uncertainty, leading to lower confidence and reduced investment.

Hong Kong GDP is expected to grow by 1.7% in 2025 in the Central scenario, and the average rate of Hong Kong GDP growth is forecast to be 2.6% over the five-year forecast period.

The key features of our Central scenario are:

- GDP growth rates in our key markets are expected to slow in 2025 and 2026, due to the implementation of higher tariffs as well as underlying structural weaknesses in some economies. The most significant slowdowns in activity are expected to occur in the markets with the highest trade dependence with the US. Elevated interest rates and higher price levels are also expected to continue to weigh on some consumer and corporate segments.
- Hong Kong unemployment is expected rise moderately as economic activity slows, although it remains low by historical standards.
- In Hong Kong and mainland China, inflation is expected to remain subdued, despite higher tariffs, due to weak domestic demand.
- Price weakness in housing markets is expected to persist in Hong Kong and mainland China. High inventory level remains the biggest drag on Hong Kong and mainland China residential property and is expected to lead to another year of price declines in 2025, before recovering gradually from 2026.
- Challenging conditions are also forecast to continue in certain segments of the commercial property sector in our key markets. Structural changes to demand in the office segment in particular have driven lower valuations.

(a) Credit Risk

Measurement uncertainty and sensitivity analysis of ECL estimates continued

(audited)

The consensus Central scenario continued

- Policy interest rates in key markets are forecast to gradually decline further in 2025. In the longer term, they are expected to remain at a higher level than in recent years.

The Central scenario was created with forecasts available in late November, and reviewed continually until end December. In accordance with Group's scenario framework, a probability weight of 75% has been assigned to the Central scenario.

The following table describes key macroeconomic variables assigned in the consensus Central scenario.

Central scenario

	Hong Kong %	Mainland China %
GDP (annual average growth rate)		
2025	1.7	4.0
2026	1.8	3.7
2027	3.5	4.3
2028	3.1	3.9
2029	2.7	3.7
5-year average[1]	2.6	3.9
Unemployment rate (annual average rate)		
2025	3.3	5.2
2026	3.7	5.4
2027	3.3	5.2
2028	3.0	5.0
2029	2.9	5.0
5-year average[1]	3.2	5.2
House price (annual average growth rate)		
2025	(0.5)	(5.9)
2026	2.4	(0.7)
2027	3.0	3.2
2028	2.7	4.1
2029	2.7	2.9
5-year average[1]	2.1	0.7
Probability	75	75

1 The 5-year average is computed by using the projection of time period from 1Q 2025 to 4Q 2029.

The consensus Upside scenario

Compared with the Central scenario, the consensus Upside scenario features stronger economic activity in the near term, before converging to long-run trend expectations. It also incorporates a faster fall in the rate of inflation than incorporated in the Central scenario.

The scenario is consistent with a number of key upside risk themes. These include only limited increases in tariffs, a faster fall in the rate of inflation that allows central banks to reduce interest rates more quickly; a de-escalation in geopolitical tensions, as the Israel-Hamas and Russia-Ukraine wars moves towards conclusions, and an improvement in the US-China relationship.

The following table describes key macroeconomic variables and the probabilities assigned in the consensus Upside scenario.

Consensus Upside scenario best outcome

	Hong Kong %	Mainland China %
GDP growth (%, Start-to-peak)[1]	21.4 (4Q29)	27.5 (4Q29)
Unemployment rate (%, Min)[1]	2.9 (4Q29)	4.9 (4Q26)
House price index (%, Start-to-peak)[1]	25.3 (4Q29)	9.8 (4Q29)
Probability	10	10

1 'Start-to-peak' is the cumulative change to the highest level of the series during the 20-quarter projection from 1Q25 to 4Q29. '%, Min' is the lowest projected unemployment rate in the scenario.

Downside scenarios

Downside scenarios explore the intensification and crystallisation of a number of key economic and financial risks. These include a more material escalation of tariff policies and geopolitical tensions, which disrupt key commodity and goods markets, causing inflation and interest rates to rise, and creating a global recession.

As the geopolitical environment remains volatile and complex, risks include:

- an increase in protectionist policies, as countries increasingly impose retaliatory tariffs. This lowers investment, complicates international supply chains, and impedes trade flows;
- a broader and more prolonged conflict in the Middle East and between Russia and Ukraine, which further disrupts energy, fertiliser and food supplies; and

(a) Credit Risk

Measurement uncertainty and sensitivity analysis of ECL estimates continued

(audited)

Downside scenarios continued

- continued differences between the US and China, which could affect economic confidence, the global goods trade and supply chains for critical technologies.

High inflation and higher interest rates also remain key risks. Should tariffs increase significantly and geopolitical tensions escalate, energy and food prices could rise and increase pressure on household budgets and firms' costs.

Higher inflation and labour supply shortages could also trigger a wage-price spiral and put sustained pressure on household incomes and corporate margins. In turn, it raises the risk that central bank react more forcefully, leading to higher defaults and a deep economic recession.

The consensus Downside scenario

In the consensus Downside scenario, economic activity is weaker compared with the Central scenario. In this scenario, GDP declines, unemployment rates rise, and asset prices fall. The scenario features an increase in tariffs over and above those assumed in the Central scenario and an escalation of geopolitical tensions, which causes a rise in inflation, as supply chain constraints intensify and energy prices rise. The scenario also features a temporary increase in interest rates above the Central scenario, before the effects of weaker consumption demand begin to dominate and commodity prices and inflation fall again.

The following table describes key macroeconomic variables and the probabilities assigned in the consensus Downside scenario.

Consensus Downside scenario worst outcome

	Hong Kong %	Mainland China %
GDP growth (%, Start-to-trough)[1]	(4.5) (4Q25)	(2.5) (3Q25)
Unemployment rate (%, Max)[1]	5.1 (2Q26)	6.9 (4Q26)
House price index (%, Start-to-trough)1	(1.9) (2Q26)	(12.8) (3Q26)
Probability	10	10

1 'Start-to-trough' is the cumulative change to the lowest level of the series during the 20-quarter projection from 1Q25 to 4Q29. '%, Max' is the highest projected unemployment rate in the scenario.

Downside 2 scenario

The Downside 2 scenario features a deep global recession and reflects management's view of the tail of the economic distribution. It incorporates the crystallisation of a number of risks simultaneously, including significant increases in tariffs globally, where the US imposes tariffs of 60% on imports from mainland China, and a further escalation of geopolitical crises, which creates severe supply disruptions to goods and energy markets. In the scenario, as inflation surges and central banks tighten monetary policy further, confidence evaporates. However, this impulse is expected to prove short-lived, as recession takes hold, causing a sharp fall in demand, leading commodity prices to correct sharply and global price inflation to fall.

The following table describes key macroeconomic variables and the probabilities assigned in the Downside 2 scenario.

Downside 2 scenario worst outcome

	Hong Kong %	Mainland China %
GDP growth (%, Start-to-trough)[1]	(10.1) (4Q25)	(8.7) (4Q25)
Unemployment rate (%, Max)[1]	7.1 (1Q26)	7.1 (4Q26)
House price index (%, Start-to-trough)[1]	(34.4) (3Q27)	(30.5) (4Q26)
Probability	5	5

1 'Start-to-trough' is the cumulative change to the lowest level of the series during the 20-quarter projection from 1Q25 to 4Q29. '%, Max' is the highest projected unemployment rate in the scenario.

Scenario weightings

Scenarios are calibrated to probabilities that are determined with reference to consensus probability distributions. Management may then choose to vary weights if they assess that the calibration lags more recent events, or does not reflect their view of the distribution of economic and geopolitical risk. Management's view of the scenarios and weights takes into consideration the relationship of the consensus scenarios to both internal and external assessments of risk.

In reviewing the economic environment, the level of risk and uncertainty, management has considered both global and market specific factors.

(a) Credit Risk

Measurement uncertainty and sensitivity analysis of ECL estimates continued

(audited)

Scenario weightings continued

In the fourth quarter of 2024, key considerations in the fourth quarter around uncertainty attached to the Central scenario projections focused on:

- US import tariffs and bilateral tariff escalations globally and the impact to trade and manufacturing supply chains;
- the extent to which authorities in mainland China can support economic activity and growth;
- prospects for recovery in the Hong Kong residential property market; and
- the impacts of ongoing volatility in interest rate expectations on household finances and businesses, and the implications of changes to monetary policy expectations on growth and employment.

Although these risk factors are significant, management assessed that the adjusted Central scenario reflected their most likely future outcome and that outer scenarios were sufficiently well calibrated to address the crystalisation of more severe risk.

This led management to assign scenario probabilities that are aligned to the standard scenario probability calibration framework. This entailed assigning a 75% probability weighting to the Central scenario in our major markets. The consensus Upside scenario was assigned a 10% weighting and the consensus Downside scenario was assigned 10%. The Downside 2 scenario was assigned a 5% weighting.

In support of the decision, it was noted that the effect of higher tariffs would be most negative in mainland China and Hong Kong, as it would restrict trade growth (a significant growth driver in 2024) substantially and lead to weaker domestic demand. The adjustment to the Central scenario reflected this assumption.

Critical accounting estimates and judgements

The calculation of ECL under HKFRS 9 involves significant judgements, assumptions and estimates at 31 December 2024. These include:

- the selection and configuration of economic scenarios, given constant change in economic conditions and distribution of economic risks; and
- estimating the economic effects of those scenarios on ECL where similar observable historical conditions cannot be captured by the credit risk models.

How economic scenarios are reflected in the calculation of ECL

Models are used to reflect economic scenarios on ECL estimates. As described above, modelled assumptions and linkages based on historical information could not alone produce relevant information under the conditions experienced in 2024, and management judgemental adjustments were still required to support modelled outcomes.

The HSBC Group has developed a globally consistent methodology for the application of forward economic guidance into the calculation of ECL for wholesale and retail credit risk. The Group has continued to follow the HSBC Group methodology. These standard approaches are described below, followed by the management judgemental adjustments made, including those to reflect the circumstances experienced in 2024.

For our wholesale portfolios, we estimate the term structure of probability of default ('PD') and loss given default ('LGD'). For PDs, we consider the correlation of forward economic guidance to default rates for a particular industry in a market. For LGD calculations we consider the correlation of forward economic guidance to collateral values and realisation rates for a particular market and industry. PDs and LGDs are estimated for the entire term structure of each instrument.

For impaired loans, LGD estimates take into account independent recovery valuations provided by external consultants where available, or internal forecasts corresponding to anticipated economic conditions and individual company conditions. In estimating the ECL on impaired loans that are individually considered not to be significant, we incorporate forward economic guidance proportionate to the probability-weighted outcome and the Central scenario outcome for non-stage 3 populations.

(a) Credit Risk

Measurement uncertainty and sensitivity analysis of ECL estimates continued

(audited)

How economic scenarios are reflected in the calculation of ECL continued

For our retail portfolios, the models are predominantly based on historical observations and correlations with default rates and collateral values.

For PD, the impact of economic scenarios is modelled for each portfolio, using historical relationships between default rates and macroeconomic variables. These are included within HKFRS 9 ECL estimates using either economic response models or models which contain internal, external and macroeconomic variables. The macroeconomic impact on PD is modelled over the period equal to the remaining maturity of the underlying assets.

For LGD, the impact is modelled for mortgage portfolios by forecasting future loan-to-value profiles for the remaining maturity of the asset, leveraging market level house price index forecast and applying the corresponding LGD expectation relative to the updated forecast collateral values. For unsecured portfolios historically observed recovery rates are leveraged to measure loss. For both mortgages and unsecured, a limited number of portfolios utilise a macro-economic dependent stressed LGD applied to the alternative downside scenario.

Management judgemental adjustments

In the context of HKFRS 9, management judgemental adjustments are typically short-term increases or decreases to the modelled ECL at either a customer, segment or portfolio level, where management believes allowance do not sufficiently reflect the credit risk/expected credit losses at the reporting date. These can relate to risks or uncertainties which are not reflected in the models and/or to any late breaking events with significant uncertainty, subject to management review and challenge.

This includes refining model inputs and outputs and using adjustments to ECL based on management judgement and quantitative analysis for impacts that are difficult to model.

The effect of management judgemental adjustments are considered for both balances and ECL when determining whether or not a significant increase in credit risk has occurred and is allocated to stage where appropriate. This is in accordance with the internal adjustments framework.

Management judgemental adjustments are reviewed under the governance process for HKFRS 9 (as detailed in the section Credit risk management). Review and challenge focus on the rationale and quantum of the adjustments with further review by the second line of defence where significant. For some management judgemental adjustments, internal frameworks establish the conditions under which these adjustments should no longer be required and as such are considered as part of the governance process. This internal governance process allows management judgemental adjustments to be reviewed regularly and, where possible, to reduce the reliance on these through model recalibration or redevelopment, as appropriate.

The drivers of management judgemental adjustments continue to evolve with the economic environment, and as new risks emerge.

For the wholesale portfolio, defaulted exposures are assessed individually and management judgemental adjustments are made only to the performing portfolio.

At 31 December 2024, management judgement adjustments reduced by HK$535m compared with 31 December 2023. For the wholesale portfolios, this was due to modelled outcomes better reflecting the key risks at 31 December 2024. For the retail portfolio, there was a decrease in adjustment due to exit of macro-related adjustments as impact was already embedded in the FEG model.

Management judgemental adjustments made in estimating the scenario-weighted reported ECL at 31 December 2024 are set out in the following table.

(a) Credit Risk

Measurement uncertainty and sensitivity analysis of ECL estimates continued

(audited)

Management judgemental adjustments continued

Management judgemental adjustments to ECL[1]:

(HK$m)	Retail	Wholesale	Total
	31 December 2024		
Corporate lending adjustments	**–**	**(83)**	**(83)**
Macroeconomic-related adjustments	**–**	**–**	**–**
Other lending adjustments	**57**	**21**	**78**
Total	**57**	**(62)**	**(5)**

(HK$m)	Retail	Wholesale	Total
	31 December 2023		
Corporate lending adjustments	–	243	243
Macroeconomic-related adjustments	271	–	271
Other lending adjustments	(21)	37	16
Total	250	280	530

1 Management judgemental adjustments presented in the table reflect increases or (decreases) to ECL, respectively.

Adjustments to corporate exposures principally reflected the outcome of management judgements for high-risk and vulnerable sectors through corporate lending adjustment in our key markets, supported by credit experts' input, quantitative analyses and benchmarks. Considerations included potential default suppression in some sectors due to continued government intervention. The corporate lending adjustments were negative HK$83m at 31 December 2024 (31 December 2023: positive HK$243m). The decrease in adjustment compared with 31 December 2023 is attributed to a crystallisation of existing risks at that date through downgrades, and an improved reflection of emerging risks in macroeconomic scenarios and modelled outcomes.

In the retail portfolio, management judgement adjustments mainly relate to unsecured portfolios regarding model performance and adjustment for mortgages portfolios mainly regarding volatility of property price.

There was an ECL increase of HK$57m at 31 December 2024 (31 December 2023: HK$250m increase).

- Model performance-related adjustments increased ECL by HK$34m. These adjustment were primarily in relation to impact from model performance review in major unsecured portfolios to ensure outcome estimates remains accurate and relevant.
- Mortgages-related adjustments increased ECL by HK$23m. The adjustment was considered to ensure sufficient provision mainly regarding volatility of property price.

Economic scenarios sensitivity analysis of ECL estimates

Management considered the sensitivity of the ECL outcome against the economic forecasts as part of the ECL governance process by recalculating the allowance for ECL under each scenario described above for selected portfolios, applying a 100% weighting to each scenario in turn. The weighting is reflected in both the determination of a significant increase in credit risk and the measurement of the resulting allowances.

(a) Credit Risk

Measurement uncertainty and sensitivity analysis of ECL estimates continued

(audited)

Economic scenarios sensitivity analysis of ECL estimates continued

The allowance for ECL calculated for the Upside and Downside scenarios should not be taken to represent the upper and lower limits of possible actual ECL outcomes. The impact of defaults that might occur in future under different economic scenarios is captured by recalculating ECL for loans at the balance sheet date.

There is a particularly high degree of estimation uncertainty in numbers representing tail risk scenarios when assigned a 100% weighting.

For wholesale credit risk exposures, the sensitivity analysis excludes ECL and financial instruments related to defaulted obligors because the measurement of ECL is relatively more sensitive to credit factors specific to the obligor than future economic scenarios. Therefore, it is impracticable to separate the effect of macroeconomic factors in individual assessments.

For retail credit risk exposures, the sensitivity analysis includes ECL for loans and advances to customers related to defaulted obligors. This is because the retail ECL for unsecured portfolios including loans in stages 1/2 is sensitive to macroeconomic variables.

Wholesale and Retail sensitivity

The wholesale and retail sensitivity tables present the 100% weighted results. These exclude portfolios held by the insurance business and small portfolios and as such cannot be directly compared to personal and wholesale lending presented in other credit risk tables. Additionally, in both the wholesale and retail analysis, the comparative period results for Downside 2 scenarios are not directly comparable to the current period, because they reflect different risk profiles relative with the Consensus scenarios for the year end.

The wholesale and retail sensitivity analysis is stated inclusive of management judgemental adjustments, as appropriate to each scenario.

For both retail and wholesale portfolios, the gross carrying amount of financial instruments are the same under each scenario. For exposures with similar risk profile and product characteristics, the sensitivity impact is therefore largely the result of changes in macroeconomic assumptions.

Wholesale analysis

HKFRS 9 ECL sensitivity to future economic conditions[1,3]

ECL of financial instruments subject to significant measurement uncertainty[2]	31 December 2024		31 December 2023	
	Hong Kong	Mainland China	Hong Kong	Mainland China
Reported ECL	1,636	404	2,533	602
Central scenario	1,501	346	2,362	530
Upside scenario	1,071	237	1,819	370
Downside scenario	2,541	668	3,317	896
Downside 2 scenario	4,513	1,429	5,412	1,847

1 Excludes ECL and financial instruments on defaulted obligors because the measure of ECL is relatively more sensitive to credit factors specific to the obligor than future economic scenarios.

2 Includes off-balance sheet financial instruments that are subject to significant measurement uncertainty.

3 ECL sensitivity is calculated by applying a 100% weighting to each scenario described above, and then applying judgemental overlays where determined appropriate.

Compared with 31 December 2023, the Downside 2 ECL impact was lower in Hong Kong and mainland China, mostly due to the crystallisation of defaults for certain high-risk exposures and decrease of the associated downside uncertainty.

(a) Credit Risk

Measurement uncertainty and sensitivity analysis of ECL estimates continued

(audited)

Wholesale and Retail sensitivity continued

Retail analysis

HKFRS 9 ECL sensitivity to future economic conditions[1,3]

	31 December 2024		31 December 2023	
ECL of loans and advances to customers[2]	Hong Kong	Mainland China	Hong Kong	Mainland China
Reported ECL	1,311	57	1,554	21
Central scenario	1,239	46	1,303	19
Upside scenario	1,213	45	1,153	19
Downside scenario	1,336	63	2,176	22
Downside 2 scenario	3,564	155	5,115	45

1 ECL sensitivities exclude portfolios utilising less complex modelling approaches.

2 ECL sensitivity includes only on-balance sheet financial instruments to which HKFRS 9 impairment requirements are applied.

3 ECL sensitivity is calculated by applying a 100% weighting to each scenario described above, and then applying judgemental overlays where determined appropriate.

At 31 December 2024, the most significant level of ECL sensitivity was observed in Hong Kong driven by the relative size of the portfolio. Hong Kong mortgages had low levels of reported ECL due to secured nature. Credit cards and other unsecured lending are more sensitive to economic forecasts, and therefore reflected the highest level of ECL sensitivity during 2024.

(a) Credit Risk

Reconciliation of changes in gross carrying/ nominal amount and allowances for placings with and advances to banks and loans and advances to customers, including loan commitments and financial guarantees

(audited)

The following disclosure provides a reconciliation by stage of the Group's gross carrying/nominal amount and allowances for placings with and advances to banks and loans and advances to customers, including loan commitments and financial guarantees. Movements are calculated on a year-to-date basis and therefore reflect the opening and closing position of the financial instruments.

The transfers of financial instruments represents the impact of stage transfers upon the gross carrying/nominal amount and associated allowance for ECL.

The net remeasurement of ECL arising from stage transfers represents the increase or decrease due to these transfers, for example, moving from a 12-month (stage 1) to a lifetime (stage 2) ECL measurement basis. Net remeasurement excludes the underlying CRR/PD movements of the financial instruments transferring stage. This is captured, along with other credit quality movements in the 'changes in risk parameters – credit quality' line item.

Changes in 'New financial assets originated and purchased', 'assets derecognised (including final repayments)' and 'changes to risk parameters – further lending/repayments' represent the impact from volume movements within the Group's lending portfolio.

	Non credit-impaired				Credit-impaired				Total	
	Stage 1		Stage 2		Stage 3		POCI[1]			
	Gross carrying/ nominal amount	Allowance for ECL	Gross carrying/ nominal amount	Allowance for ECL	Gross carrying/ nominal amount	Allowance for ECL	Gross carrying/ nominal amount	Allowance for ECL	Gross carrying/ nominal amount	Allowance for ECL
At 1 January 2024	**1,125,306**	**(798)**	**155,555**	**(3,840)**	**24,635**	**(9,158)**	**117**	**–**	**1,305,613**	**(13,796)**
Transfers of financial instruments:										
– transfers from Stage 1 to Stage 2	(42,560)	63	42,560	(63)	–	–	–	–	–	–
– transfers from Stage 2 to Stage 1	37,999	(539)	(37,999)	539	–	–	–	–	–	–
– transfers to Stage 3	(4,801)	48	(32,477)	1,245	37,278	(1,293)	–	–	–	–
– transfers from Stage 3	1	–	29	(3)	(30)	3	–	–	–	–
Net remeasurement of ECL arising from transfer of stage	–	207	–	(113)	–	(11)	–	–	–	83
Changes due to modifications not derecognised	–	–	–	–	(45)	–	–	–	(45)	–
New financial assets originated and purchased[2]	272,609	(223)	6,313	(209)	–	–	–	–	278,922	(432)
Assets derecognised (including final repayments)	(224,777)	134	(58,959)	488	(970)	13	–	–	(284,706)	635
Changes to risk parameters – further lending/(repayments)	(38,592)	163	13,783	156	(6,233)	371	3	–	(31,039)	690
Changes to risk parameters – credit quality	–	95	–	(621)	–	(4,714)	–	(33)	–	(5,273)
Changes to model used for ECL calculation	–	35	–	(125)	–	–	–	–	–	(90)
Assets written off	–	–	–	–	(6,317)	6,317	–	–	(6,317)	6,317
Foreign exchange and others	(4,152)	64	(439)	11	2,685	(1,292)	22	(21)	(1,884)	(1,238)
At 31 December 2024	**1,121,033**	**(751)**	**88,366**	**(2,535)**	**51,003**	**(9,764)**	**142**	**(54)**	**1,260,544**	**(13,104)**

	Total
Change in ECL in income statement (charge)/ release for the year	(4,387)
Add: Recoveries	179
Add: Modification losses on contractual cash flows that did not result in derecognition	(45)
Add/(less): Others	(553)
Total ECL (charge)/ release for the year	(4,806)

(a) Credit Risk

Reconciliation of changes in gross carrying/nominal amount and allowances for placings with and advances to banks and loans and advances to customers, including loan commitments and financial guarantees continued

(audited)

	At 31 December 2024		For the year ended 31 December 2024
	Gross carrying/ nominal amount	Allowance for ECL	ECL (charge)/ release
Placings with and advances to banks and loans and advances to customers, including loan commitments and financial guarantees	**1,260,544**	**(13,104)**	**(4,806)**
Other financial assets measured at amortised cost	**202,436**	**(23)**	**28**
Summary of financial instruments to which the impairment requirements in HKFRS 9 are applied	**1,462,980**	**(13,127)**	**(4,778)**
Debt instruments measured at FVOCI[3]	**407,065**	**(5)**	**(2)**
Performance and other guarantees	**20,950**	**(21)**	**7**
Total allowances for ECL/ total consolidated income statement ECL charge for the year	**1,890,995**	**(13,153)**	**(4,773)**

1 Purchased or originated credit-impaired ('POCI') represented distressed restructuring.

2 Includes the new financial assets originated and purchased during the year, but subsequently transferred from stage 1 to stage 2 or stage 3 at 31 December 2024.

3 For the purposes of this disclosure, gross carrying value is defined as the amortised cost of a financial asset, before adjusting for any loss allowances. As such, the gross carrying value of debt instruments at FVOCI as presented above will not reconcile to the Consolidated Balance Sheet as it excludes fair value gains and losses.

	Non credit-impaired				Credit-impaired				Total	
	Stage 1		Stage 2		Stage 3		POCI[1]			
	Gross carrying/ nominal amount	Allowance for ECL	Gross carrying/ nominal amount	Allowance for ECL	Gross carrying/ nominal amount	Allowance for ECL	Gross carrying/ nominal amount	Allowance for ECL	Gross carrying/ nominal amount	Allowance for ECL
At 1 January 2023	1,162,085	(827)	179,597	(4,920)	23,943	(7,802)	301	(19)	1,365,926	(13,568)
Transfers of financial instruments:										
– transfers from Stage 1 to Stage 2	(68,066)	97	68,066	(97)	–	–	–	–	–	–
– transfers from Stage 2 to Stage 1	26,207	(309)	(26,207)	309	–	–	–	–	–	–
– transfers to Stage 3	(1,301)	84	(8,400)	1,959	9,701	(2,043)	–	–	–	–
– transfers from Stage 3	7	(2)	41	(2)	(48)	4	–	–	–	–
Net remeasurement of ECL arising from transfer of stage	–	126	–	(194)	–	(18)	–	–	–	(86)
New financial assets originated and purchased[2]	265,973	(208)	7,699	(188)	–	–	–	–	273,672	(396)
Assets derecognised (including final repayments)	(205,674)	71	(59,207)	468	(459)	8	(114)	–	(265,454)	547
Changes to risk parameters – further lending/(repayments)	(50,316)	137	(5,610)	736	(2,866)	2,689	(70)	19	(58,862)	3,581
Changes in risk parameters – credit quality	–	22	–	(1,923)	–	(7,607)	–	–	–	(9,508)
Assets written off	–	–	–	–	(5,600)	5,600	–	–	(5,600)	5,600
Foreign exchange and others	(3,609)	11	(424)	12	(36)	11	–	–	(4,069)	34
At 31 December 2023	1,125,306	(798)	155,555	(3,840)	24,635	(9,158)	117	–	1,305,613	(13,796)

	Total
Change in ECL in income statement (charge)/ release for the year	(5,862)
Add: Recoveries	229
Add/(less): Others	(580)
Total ECL (charge)/ release for the year	(6,213)

(a) Credit Risk

Reconciliation of changes in gross carrying/nominal amount and allowances for placings with and advances to banks and loans and advances to customers, including loan commitments and financial guarantees continued

(audited)

	At 31 December 2023		For the year ended 31 December 2023
	Gross carrying/ nominal amount	Allowance for ECL	ECL (charge)/ release
Placings with and advances to banks and loans and advances to customers, including loan commitments and financial guarantees	1,305,613	(13,796)	(6,213)
Other financial assets measured at amortised cost	172,015	(59)	(12)
Summary of financial instruments to which the impairment requirements in HKFRS 9 are applied	1,477,628	(13,855)	(6,225)
Debt instruments measured at FVOCI[3]	302,013	(3)	3
Performance and other guarantees	21,086	(28)	(26)
Total allowances for ECL/ total consolidated income statement ECL charge for the year	1,800,727	(13,886)	(6,248)

1 Purchased or originated credit-impaired ('POCI') represented distressed restructuring.

2 Includes the new financial assets originated and purchased during the year, but subsequently transferred from stage 1 to stage 2 or stage 3 at 31 December 2023.

3 For the purposes of this disclosure, gross carrying value is defined as the amortised cost of a financial asset, before adjusting for any loss allowances. As such, the gross carrying value of debt instruments at FVOCI as presented above will not reconcile to the Consolidated Balance Sheet as it excludes fair value gains and losses.

Credit quality of financial instruments

We assess the credit quality of all financial instruments that are subject to credit risk. The credit quality of financial instruments is a point-in-time assessment of the probability of default of financial instruments, whereas HKFRS 9 stages 1 and 2 are determined based on relative deterioration of credit quality since initial recognition. Accordingly, for non-credit impaired financial instruments, there is no direct relationship between the credit quality assessments and HKFRS 9 stages 1 and 2, though typically the lowered credit quality bands exhibit a higher proportion in stage 2.

(a) Credit Risk

Credit quality of financial instruments continued

Distribution of financial instruments by credit quality at 31 December 2024

(audited)

	Gross carrying / notional amount[3]							
	Strong	Good	Satisfactory	Sub-standard	Credit-impaired	Total	Allowance for ECL	Net
In-scope for HKFRS 9 impairment								
Loans and advances to customers at amortised cost	465,309	122,793	165,397	27,646	50,964	832,109	(12,973)	819,136
– personal	360,576	10,050	13,996	515	1,220	386,357	(1,486)	384,871
– corporate and commercial	88,414	100,968	145,257	27,131	49,744	411,514	(11,450)	400,064
– non-bank financial institutions	16,319	11,775	6,144	–	–	34,238	(37)	34,201
Placings with and advances to banks at amortised cost	75,953	248	22	–	–	76,223	(2)	76,221
Cash and balances at central banks	10,433	–	–	–	–	10,433	–	10,433
Reverse repurchase agreements – non-trading	26,171	7,308	–	–	–	33,479	–	33,479
Financial investments measured at amortised cost	129,965	77	–	–	–	130,042	(3)	130,039
Other assets	17,944	3,907	6,581	44	6	28,482	(20)	28,462
Debt instruments measured at fair value through other comprehensive income[1]	407,063	2	–	–	–	407,065	(5)	407,060
	1,132,838	134,335	172,000	27,690	50,970	1,517,833	(13,003)	1,504,830
Out-of-scope for HKFRS 9 impairment								
Trading assets	39,352	192	62	–	7	39,613	–	39,613
Other financial assets mandatorily measured at fair value through profit or loss	88,814	21,377	4,094	–	83	114,368	–	114,368
Derivative financial instruments	19,772	396	10	23	–	20,201	–	20,201
	147,938	21,965	4,166	23	90	174,182	–	174,182
	1,280,776	156,300	176,166	27,713	51,060	1,692,015	(13,003)	1,679,012
Percentage of total credit quality	76%	9%	10%	2%	3%	100%		
Loan and other credit related commitments[2]	261,586	44,551	43,211	785	181	350,314	(126)	350,188
Financial guarantee and similar contracts[2]	550	458	738	152	–	1,898	(3)	1,895

1 For the purposes of this disclosure, gross carrying value is defined as the amortised cost of a financial asset, before adjusting for any loss allowance. As such, the gross carrying value of debt instruments at FVOCI as presented above will not reconcile to the Consolidated Balance Sheet as it excludes fair value gains and losses.

2 Figures do not include commitments and financial guarantee contracts not subject to impairment requirements under HKFRS 9. As such, the amounts do not agree with the figures shown in note 43 of the Consolidated Financial Statements.

3 For financial assets under 'In-scope for HKFRS 9 impairment', gross carrying amount is disclosed; for financial assets under 'Out-of-scope for HKFRS 9 impairment', carrying amount (i.e. fair value) is disclosed; for off-balance credit commitments, notional amount is disclosed.

(a) Credit Risk

Credit quality of financial instruments continued

Distribution of financial instruments by credit quality at 31 December 2023

(audited)

	Gross carrying / notional amount[3]							
	Strong	Good	Satisfactory	Sub-standard	Credit-impaired	Total	Allowance for ECL	Net
In-scope for HKFRS 9 impairment								
Loans and advances to customers at amortised cost	463,501	135,307	215,875	34,607	24,749	874,039	(13,633)	860,406
– personal	365,758	15,348	16,851	1,121	829	399,907	(1,706)	398,201
– corporate and commercial	83,473	114,959	188,015	33,486	23,920	443,853	(11,885)	431,968
– non-bank financial institutions	14,270	5,000	11,009	–	–	30,279	(42)	30,237
Placings with and advances to banks at amortised cost	83,476	258	26	–	–	83,760	(4)	83,756
Cash and balances at central banks	10,564	–	–	–	–	10,564	–	10,564
Reverse repurchase agreements – non-trading	24,062	6,140	–	–	–	30,202	–	30,202
Financial investments measured at amortised cost	100,060	392	–	–	–	100,452	(14)	100,438
Other assets	18,387	5,950	6,174	216	70	30,797	(45)	30,752
Debt instruments measured at fair value through other comprehensive income[1]	302,011	2	–	–	–	302,013	(3)	302,010
	1,002,061	148,049	222,075	34,823	24,819	1,431,827	(13,699)	1,418,128
Out-of-scope for HKFRS 9 impairment								
Trading assets	43,679	113	189	–	4	43,985	–	43,985
Other financial assets mandatorily measured at fair value through profit or loss	91,144	26,127	2,468	–	45	119,784	–	119,784
Derivative financial instruments	14,502	289	110	58	–	14,959	–	14,959
	149,325	26,529	2,767	58	49	178,728	–	178,728
	1,151,386	174,578	224,842	34,881	24,868	1,610,555	(13,699)	1,596,856
Percentage of total credit quality	71%	11%	14%	2%	2%	100%		
Loan and other credit related commitments[2]	250,585	51,099	43,362	883	3	345,932	(155)	345,777
Financial guarantee and similar contracts[2]	444	797	509	132	–	1,882	(4)	1,878

1 For the purposes of this disclosure, gross carrying value is defined as the amortised cost of a financial asset, before adjusting for any loss allowance. As such, the gross carrying value of debt instruments at FVOCI as presented above will not reconcile to the Consolidated Balance Sheet as it excludes fair value gains and losses.

2 Figures do not include commitments and financial guarantee contracts not subject to impairment requirements under HKFRS 9. As such, the amounts do not agree with the figures shown in note 43 of the Consolidated Financial Statements.

3 For financial assets under 'In-scope for HKFRS 9 impairment', gross carrying amount is disclosed; for financial assets under 'Out-of-scope for HKFRS 9 impairment', carrying amount (i.e. fair value) is disclosed; for off-balance credit commitments, notional amount is disclosed.

(a) Credit Risk

Credit quality of financial instruments continued

Distribution of financial instruments to which the impairment requirements in HKFRS 9 are applied, by credit quality and stage distribution

(audited)

	Gross carrying/notional amount							
	Strong	Good	Satisfactory	Sub-standard	Credit-impaired	Total	Allowance for ECL	Net
Loans and advances to customers at amortised cost	465,309	122,793	165,397	27,646	50,964	832,109	(12,973)	819,136
– Stage 1	461,564	118,603	125,317	994	–	706,478	(683)	705,795
– Stage 2	3,745	4,190	40,080	26,652	–	74,667	(2,472)	72,195
– Stage 3	–	–	–	–	50,822	50,822	(9,764)	41,058
– POCI	–	–	–	–	142	142	(54)	88
Placings with and advances to banks at amortised cost	75,953	248	22	–	–	76,223	(2)	76,221
– Stage 1	75,737	248	22	–	–	76,007	(2)	76,005
– Stage 2	216	–	–	–	–	216	–	216
– Stage 3	–	–	–	–	–	–	–	–
– POCI	–	–	–	–	–	–	–	–
Other financial assets measured at amortised cost	184,513	11,292	6,581	44	6	202,436	(23)	202,413
– Stage 1	184,505	11,232	5,615	–	–	201,352	(20)	201,332
– Stage 2	8	60	966	44	–	1,078	(3)	1,075
– Stage 3	–	–	–	–	6	6	–	6
– POCI	–	–	–	–	–	–	–	–
Loan and other credit-related commitments[2]	261,586	44,551	43,211	785	181	350,314	(126)	350,188
– Stage 1	260,224	40,846	35,545	383	–	336,998	(65)	336,933
– Stage 2	1,362	3,705	7,666	402	–	13,135	(61)	13,074
– Stage 3	–	–	–	–	181	181	–	181
– POCI	–	–	–	–	–	–	–	–
Financial guarantees and similar contracts[2]	550	458	738	152	–	1,898	(3)	1,895
– Stage 1	550	454	546	–	–	1,550	(1)	1,549
– Stage 2	–	4	192	152	–	348	(2)	346
– Stage 3	–	–	–	–	–	–	–	–
– POCI	–	–	–	–	–	–	–	–
At 31 December 2024	987,911	179,342	215,949	28,627	51,151	1,462,980	(13,127)	1,449,853
Debt instruments at FVOCI[1]								
– Stage 1	407,063	2	–	–	–	407,065	(5)	407,060
– Stage 2	–	–	–	–	–	–	–	–
– Stage 3	–	–	–	–	–	–	–	–
– POCI	–	–	–	–	–	–	–	–
At 31 December 2024	407,063	2	–	–	–	407,065	(5)	407,060

1 For the purposes of this disclosure, gross carrying value is defined as the amortised cost of a financial asset, before adjusting for any loss allowances. As such, the gross carrying value of debt instruments at FVOCI as presented above will not reconcile to the figure shown in Consolidated Balance Sheet as it excludes fair value gains and losses.

2 Figures do not include commitments and financial guarantee contracts not subject to impairment requirements under HKFRS 9. As such, the amounts do not agree with the figures shown in note 43 of the Consolidated Financial Statements.

(a) Credit Risk

Credit quality of financial instruments continued

Distribution of financial instruments to which the impairment requirements in HKFRS 9 are applied, by credit quality and stage distribution continued

(audited)

	Gross carrying/notional amount							
	Strong	Good	Satisfactory	Sub-standard	Credit-impaired	Total	Allowance for ECL	Net
Loans and advances to customers at amortised cost	463,501	135,307	215,875	34,607	24,749	874,039	(13,633)	860,406
– Stage 1	460,946	120,509	130,717	1,352	–	713,524	(709)	712,815
– Stage 2	2,555	14,798	85,158	33,255	–	135,766	(3,766)	132,000
– Stage 3	–	–	–	–	24,632	24,632	(9,158)	15,474
– POCI	–	–	–	–	117	117	–	117
Placings with and advances to banks at amortised cost	83,476	258	26	–	–	83,760	(4)	83,756
– Stage 1	83,440	241	26	–	–	83,707	(4)	83,703
– Stage 2	36	17	–	–	–	53	–	53
– Stage 3	–	–	–	–	–	–	–	–
– POCI	–	–	–	–	–	–	–	–
Other financial assets measured at amortised cost	153,073	12,482	6,174	216	70	172,015	(59)	171,956
– Stage 1	153,066	12,145	5,077	–	–	170,288	(41)	170,247
– Stage 2	7	337	1,097	216	–	1,657	(3)	1,654
– Stage 3	–	–	–	–	70	70	(15)	55
– POCI	–	–	–	–	–	–	–	–
Loan and other credit-related commitments[2]	250,585	51,099	43,362	883	3	345,932	(155)	345,777
– Stage 1	250,131	44,382	32,225	97	–	326,835	(84)	326,751
– Stage 2	454	6,717	11,137	786	–	19,094	(71)	19,023
– Stage 3	–	–	–	–	3	3	–	3
– POCI	–	–	–	–	–	–	–	–
Financial guarantees and similar contracts[2]	444	797	509	132	–	1,882	(4)	1,878
– Stage 1	444	604	191	1	–	1,240	(1)	1,239
– Stage 2	–	193	318	131	–	642	(3)	639
– Stage 3	–	–	–	–	–	–	–	–
– POCI	–	–	–	–	–	–	–	–
At 31 December 2023	951,079	199,943	265,946	35,838	24,822	1,477,628	(13,855)	1,463,773
Debt instruments at FVOCI[1]								
– Stage 1	302,011	2	–	–	–	302,013	(3)	302,010
– Stage 2	–	–	–	–	–	–	–	–
– Stage 3	–	–	–	–	–	–	–	–
– POCI	–	–	–	–	–	–	–	–
At 31 December 2023	302,011	2	–	–	–	302,013	(3)	302,010

1 For the purposes of this disclosure, gross carrying value is defined as the amortised cost of a financial asset, before adjusting for any loss allowances. As such, the gross carrying value of debt instruments at FVOCI as presented above will not reconcile to the figure shown in Consolidated Balance Sheet as it excludes fair value gains and losses.

2 Figures do not include commitments and financial guarantee contracts not subject to impairment requirements under HKFRS 9. As such, the amounts do not agree with the figures shown in note 43 of the Consolidated Financial Statements.

(a) Credit Risk

Credit quality of financial instruments continued

Mainland China Commercial Real Estate

(unaudited)

The following table presents the Group's total exposure to borrowers classified in the mainland China Commercial real estate ('CRE') sector where the ultimate parent is based in mainland China, as well as all CRE exposures booked on mainland China balance sheets.

CRE lending includes the financing of corporate and institutional customers who are investing primarily in income-producing assets and, to a lesser extent, in their construction and development. The exposures in the table are related to companies whose primary activities are focused on these activities. However, in addition to our normal definition of CRE, this table includes financing provided to a corporate or financial entity for the purchase or financing of a property which supports the overall operations of the business. This provides a more comprehensive view of our mainland China CRE exposures. The exposures at 31 December 2024 are split by country/territory and credit quality including allowances for ECL by stage.

	At 31 December 2024			At 31 December 2023		
	Hong Kong	Mainland China	Total	Hong Kong	Mainland China	Total
Loans and advances to customers[1]	10,975	7,002	17,977	22,453	12,041	34,494
Guarantees issued and others[2]	–	–	–	205	–	205
Total mainland China CRE exposure	10,975	7,002	17,977	22,658	12,041	34,699
Distribution of mainland China CRE exposure by credit quality						
– Strong	94	1,137	1,231	1,151	392	1,543
– Good	755	1,046	1,801	1,807	3,157	4,964
– Satisfactory	776	3,245	4,021	2,690	5,889	8,579
– Sub–standard	983	409	1,392	4,169	1,070	5,239
– Credit–impaired	8,367	1,165	9,532	12,841	1,533	14,374
	10,975	7,002	17,977	22,658	12,041	34,699
Allowance by ECL by credit quality						
– Strong	–	2	2	–	1	1
– Good	–	6	6	1	17	18
– Satisfactory	1	48	49	14	66	80
– Sub–standard	196	158	354	224	239	463
– Credit–impaired	3,101	393	3,494	6,407	479	6,886
	3,298	607	3,905	6,646	802	7,448
Allowance by ECL by stage						
– Stage 1	–	26	26	2	47	49
– Stage 2	197	188	385	237	276	513
– Stage 2	3,047	393	3,440	6,407	479	6,886
– POCI	54	–	54	–	–	–
	3,298	607	3,905	6,646	802	7,448
ECL coverage %	30.1	8.7	21.7	29.3	6.7	21.5

1 Amounts represent gross carrying amount.

2 Amounts represent nominal amount.

(a) Credit Risk

Credit quality of financial instruments continued

Mainland China Commercial Real Estate continued

(unaudited)

The mainland China commercial real estate portfolio continues to face challenges as market fundamentals remain weak and refinancing risks continue. The portfolio remains closely managed, with reductions in exposure driven by a combination de-risking measures, repayments by performing customers and write-off in the 'credit impaired' category.

The portfolio of mainland China CRE loans booked in Hong Kong remains relatively higher risk, with allowances for ECL substantially against unsecured exposures. For secured exposures, allowances for ECL are minimal, reflecting the nature and value of the security held.

Approximately 40% of the performing exposure in the mainland China CRE portfolio booked in Hong Kong is lending to state-owned enterprises and relatively strong private-owned enterprises. This is reflected in the relatively low ECL allowance in this part of the portfolio.

Mainland China real estate market activity remains depressed with continued weakness in underlying buyer demand for housing. Various government stimulus measures were introduced in 2024 to underpin market confidence. Despite some early signs of price stabilisation in certain cities, these measures have not yet triggered a meaningful recovery in transaction levels. Financing conditions and liquidity for borrowers operating in the real estate sector therefore remains constrained, particularly for privately-owned enterprises. A market recovery is likely to be protracted and contingent on further government support.

Hong Kong Commercial Real Estate

(unaudited)

The following table presents the Group's CRE lending booked in Hong Kong and not fall under the China CRE sector. The exposures are split by stage and credit quality.

	At 31 December 2024	At 31 December 2023
Gross loans and advances to customers by stage		
– Stage 1	**81,274**	90,383
– Stage 2	**29,438**	46,549
– Stage 3	**19,806**	1,081
– POCI	**–**	–
Total	**130,518**	138,013
Allowance for ECL	**1,654**	1,245
Gross loans and advances to customers by credit quality		
– Strong	**20,161**	22,605
– Good	**33,911**	36,974
– Satisfactory	**39,880**	63,308
– Sub-standard	**16,760**	14,045
– Credit-impaired	**19,806**	1,081
Total	**130,518**	138,013

(a) Credit Risk

Credit quality of financial instruments continued

Hong Kong Commercial Real Estate continued

(unaudited)

The Hong Kong CRE portfolio (excluding exposure to mainland China borrowers) saw negative credit migration in 2024 as a result of higher interest rates, high inventory levels and weak demand. This was predominantly driven by a deterioration in the secured portfolio as borrowers sought payment deferrals to accommodate debt serviceability challenges.

Secured exposures account for approximately two-thirds of the total portfolio (unchanged in proportion compared to 31 December 2023) with collateral values regularly updated in line with our existing practice. The trend of loan right-sizing and borrower deleveraging within the secured portfolio has supported good collateral coverage levels that continue to provide headroom in the event of a further softening of property valuations. As at 31 December 2024, the weighted average loan-to-value ('LTV'):

- Of performing exposures rated sub-standard was 49% (31 December 2023: 59%);
- Of impaired exposures was 60% (31 December 2023: 84%). This has driven relatively low levels of Stage 3 allowance for ECL. The reduction in LTV reflects the significantly smaller 'credit impaired' portfolio at 31 December 2023.

The unsecured portfolio remained stable in size and quality, with very limited levels of default and above 90% rated Strong or Good. Unsecured exposures are typically granted to strong, listed Hong Kong CRE developers, which commonly are members of conglomerate group with diverse cashflows.

We continue to closely assess and manage the risk in the portfolio, including through portfolio reviews and stress testing. Vulnerable borrowers, including those with debt serviceability challenges and higher LTV levels, are subject to heightened monitoring and management.

Market conditions remain challenging, particularly for commercial property as a result of continued weakness in demand. The performance of the residential market also remains mixed, with some initial improvement in sentiment and transaction levels observed in the fourth quarter of 2024, driven by a further easing of real estate regulatory policies in October and improved end-user affordability as prices and interest rates fell. Nevertheless, property price pressure is likely to persist in the near term and until economic conditions and sentiment improve. Given the more uncertain interest rate outlook, we expect broader market fundamentals to remain subdued and challenges in this sector to continue.

Collateral and other credit enhancements

(audited)

Although collateral can be an important mitigant of credit risk, it is the Group's practice to lend on the basis of the customer's ability to meet their obligations out of their cash flow resources rather than rely on the value of security offered. Depending on the customer's standing and the type of product, facilities may be provided unsecured. However, for certain lending decisions a charge over collateral is usually obtained, and is important for the credit decision and pricing. Collateral realisation is one of the sources of repayment in the event of default.

Such collateral has a significant financial effect in mitigating our exposure to credit risk and the objective of the disclosure below is to quantify these forms. We may also manage our risk by employing other types of collateral and credit risk enhancements, such as second charges, other liens and unsupported guarantees, but the valuation of such mitigants is less certain and their financial effect has not been quantified in the loans shown below.

We have quantified below the value of fixed charges we hold over a specific asset (or assets) of a borrower for which we have a practical ability and history of enforcing in satisfying a debt in the event of a borrower failing to meet their contractual obligations and where the asset is cash or can be realised in the form of cash by sale in an established market.

Personal lending

(audited)

For personal lending, the collateral held has been analysed below separately for residential mortgages and other personal lending due to the different nature of collateral held on the portfolios.

(a) Credit Risk

Collateral and other credit enhancements continued

(audited)

Residential mortgages

(audited)

The following table shows residential mortgage lending including off-balance sheet loan commitments by level of collateralisation.

	At 31 December 2024			At 31 December 2023		
	Gross carrying/ nominal amount	ECL	ECL coverage %	Gross carrying/ nominal amount	ECL	ECL coverage %
Stage 1						
Fully collateralised	270,931	(6)	0.00	293,293	(4)	0.00
LTV ratio:						
– Less than 70%	196,614	(6)	0.00	216,125	(4)	0.00
– 71% to 90%	40,955	–	–	39,790	–	–
– 91% to 100%	33,362	–	–	37,378	–	–
Partially collateralised (A)	45,396	(1)	0.00	28,796	(1)	0.00
Total	316,327	(7)	0.00	322,089	(5)	0.00
– *Collateral value on A*	42,487			27,519		
Stage 2						
Fully collateralised	4,195	(12)	0.29	8,322	–	–
LTV ratio:						
– Less than 70%	3,046	(4)	0.13	7,412	–	–
– 71% to 90%	889	(8)	0.90	543	–	–
– 91% to 100%	260	–	–	367	–	–
Partially collateralised (B)	500	–	–	347	–	–
Total	4,695	(12)	0.26	8,669	–	–
– *Collateral value on B*	465			327		
Stage 3						
Fully collateralised	848	(48)	5.66	558	(16)	2.87
LTV ratio:						
– Less than 70%	663	(25)	3.77	509	(15)	2.95
– 71% to 90%	141	(16)	11.35	35	(1)	2.86
– 91% to 100%	44	(7)	15.91	14	–	–
Partially collateralised (C)	78	(19)	24.36	22	(1)	4.55
Total	926	(67)	7.24	580	(17)	2.93
– *Collateral value on C*	69			20		
	321,948	(86)	0.03	331,338	(22)	0.01

The ECL coverage represents the actual ECL divided by gross carrying/nominal amount.

The collateral included in the table above consists of fixed first charges on residential real estate.

The LTV ratio in the table above is calculated as the gross on-balance sheet carrying amount of the loan and any off-balance sheet loan commitment at the balance sheet date as a percentage of the current value of collateral. The current value of collateral is determined through a combination of professional valuations, physical inspections or house price indices. Valuations are updated on a regular basis and more frequently when market conditions or portfolio performance are subject to significant change or where a loan is identified and assessed as impaired. The collateral valuation excludes any adjustments for obtaining and selling the collateral.

(a) Credit Risk

Collateral and other credit enhancements

continued

(audited)

Other personal lending

(audited)

Other personal lending consists primarily of personal loans, overdrafts and credit cards, all of which are generally unsecured, except lending to private banking customers which are generally secured.

Corporate and commercial and financial (non-bank) lending

(audited)

For corporate and commercial and financial (non-bank) lending, the collateral held has been analysed below separately for commercial real estate and other corporate and commercial and financial (non-bank) lending due to the different nature of collateral held on the portfolios.

Commercial real estate

(audited)

Commercial real estate ('CRE') lending includes the financing of corporate and institutional customers who are investing primarily in income-producing assets and, to a lesser extent, in their construction and development.

The following table shows commercial real estate lending including off-balance sheet loan commitments by level of collateralisation.

	At 31 December 2024			At 31 December 2023		
	Gross carrying/ nominal amount	ECL	ECL coverage %	Gross carrying/ nominal amount	ECL	ECL coverage %
Stage 1						
Not collateralised	52,637	(11)	0.02	50,544	(14)	0.03
Fully collateralised	60,634	(65)	0.11	64,453	(70)	0.11
LTV ratio:						
– less than 50%	40,159	(32)	0.08	39,358	(23)	0.06
– 51% to 75%	17,008	(18)	0.11	14,504	(12)	0.08
– 76% to 90%	652	(3)	0.46	4,848	(18)	0.37
– 91% to 100%	2,815	(12)	0.43	5,743	(17)	0.30
Partially collateralised (A)	995	–	–	12,270	(6)	0.05
Total	114,266	(76)	0.07	127,267	(90)	0.07
– Collateral value on A	746			11,641		
Stage 2						
Not collateralised	5,467	(449)	8.21	9,134	(745)	8.16
Fully collateralised	30,370	(457)	1.50	49,472	(842)	1.70
LTV ratio:						
– less than 50%	12,525	(191)	1.52	29,318	(464)	1.58
– 51% to 75%	6,108	(91)	1.49	13,936	(269)	1.93
– 76% to 90%	8,343	(111)	1.33	4,958	(101)	2.04
– 91% to 100%	3,394	(64)	1.89	1,260	(8)	0.63
Partially collateralised (B)	483	(9)	1.86	4,792	(38)	0.79
Total	36,320	(915)	2.52	63,398	(1,625)	2.56
– Collateral value on B	321			4,102		

(a) Credit Risk

Collateral and other credit enhancements continued

(audited)

Commercial real estate continued

(audited)

	At 31 December 2024			At 31 December 2023		
	Gross carrying/ nominal amount	ECL	ECL coverage %	Gross carrying/ nominal amount	ECL	ECL coverage %
Stage 3						
Not collateralised	4,673	(2,390)	51.14	8,109	(6,181)	76.22
Fully collateralised	19,969	(1,443)	7.23	5,059	(630)	12.45
LTV ratio:						
– less than 50%	8,126	(621)	7.64	1,512	(276)	18.25
– 51% to 75%	7,654	(422)	5.51	477	(9)	1.89
– 76% to 90%	3,717	(387)	10.41	2,541	(236)	9.29
– 91% to 100%	472	(13)	2.75	529	(109)	20.60
Partially collateralised (C)	4,228	(748)	17.69	221	(84)	38.01
Total	28,870	(4,581)	15.87	13,389	(6,895)	51.50
– *Collateral value on C*	3,035			200		
POCI						
Not collateralised	–	–	–	–	–	–
Fully collateralised	–	–	–	–	–	–
LTV ratio:						
– less than 50%	–	–	–	–	–	–
– 51% to 75%	–	–	–	–	–	–
– 76% to 90%	–	–	–	–	–	–
– 91% to 100%	–	–	–	–	–	–
Partially collateralised (D)	142	(54)	38.03	117	–	–
Total	142	(54)	38.03	117	–	–
– *Collateral value on D*	24			65		
	179,598	(5,626)	3.13	204,171	(8,610)	4.22

The collateral included in the table above consists of fixed first charges on real estate and charges over cash for the commercial real estate sector. The table includes lending to major property developers which is typically secured by guarantees or is unsecured.

The value of commercial real estate collateral is determined through a combination of professional and internal valuations and physical inspection. Due to the complexity of collateral valuations for commercial real estate, local valuation policies determine the frequency of review based on local market conditions. Revaluations are sought with greater frequency where, as part of the regular credit assessment of the obligor, material concerns arise in relation to the transaction which may reflect on the underlying performance of the collateral, or in circumstances where an obligor's credit quality has declined sufficiently to cause concern that the principal payment source may not fully meet the obligation (i.e. the obligor's credit quality classification indicates it is at the lower end e.g. sub-standard, or approaching impaired).

(a) Credit Risk

Collateral and other credit enhancements continued

(audited)

Other corporate and commercial and financial (non-bank) lending

(audited)

The following table shows other corporate, commercial and financial (non-bank) lending including off-balance sheet loan commitments by level of collateralisation.

	At 31 December 2024			At 31 December 2023		
	Gross carrying/ nominal amount	ECL	ECL coverage %	Gross carrying/ nominal amount	ECL	ECL coverage %
Stage 1						
Not collateralised	**324,723**	**(221)**	**0.07**	284,386	(222)	0.08
Fully collateralised	**73,338**	**(75)**	**0.10**	87,126	(110)	0.13
Partially collateralised (A)	**30,557**	**(16)**	**0.05**	33,211	(30)	0.09
Total	**428,618**	**(312)**	**0.07**	404,723	(362)	0.09
– *Collateral value on A*	**13,885**			14,725		
Stage 2						
Not collateralised	**25,162**	**(137)**	**0.54**	40,792	(182)	0.45
Fully collateralised	**21,923**	**(527)**	**2.40**	46,230	(711)	1.54
Partially collateralised (B)	**5,102**	**(32)**	**0.63**	11,258	(100)	0.89
Total	**52,187**	**(696)**	**1.33**	98,280	(993)	1.01
– *Collateral value on B*	**1,768**			5,954		
Stage 3						
Not collateralised	**3,079**	**(1,621)**	**52.65**	1,730	(900)	52.02
Fully collateralised	**11,792**	**(598)**	**5.07**	5,290	(380)	7.18
Partially collateralised (C)	**6,037**	**(2,755)**	**45.64**	3,394	(833)	24.54
Total	**20,908**	**(4,974)**	**23.79**	10,414	(2,113)	20.29
– *Collateral value on C*	**3,624**			1,617		
	501,713	**(5,982)**	**1.19**	513,417	(3,468)	0.68

The collateral used in the assessment of the above primarily includes first legal charges over real estate and charges over cash in the commercial and industrial sector and charges over cash and marketable financial instruments in the financial sector.

It should be noted that the table above excludes other types of collateral which are commonly taken for corporate and commercial lending such as unsupported guarantees and floating charges over the assets of a customer's business. While such mitigants have value, often providing rights in insolvency, their assignable value is insufficiently certain. They are assigned no value for disclosure purposes.

(a) Credit Risk

Collateral and other credit enhancements

continued

(audited)

Other corporate and commercial and financial (non-bank) lending continued

(audited)

As with commercial real estate the value of real estate collateral included in the table above is generally determined through a combination of professional and internal valuations and physical inspection. The frequency of revaluation is undertaken on a similar basis to commercial real estate loans and advances; however, for financing activities in corporate and commercial lending that are not predominantly commercial real estate-oriented, collateral value is not as strongly correlated to principal repayment performance. Collateral values will generally be refreshed when an obligor's general credit performance deteriorates and it is necessary to assess the likely performance of secondary sources of repayment should reliance upon them prove necessary. For the purposes of the table above, cash is valued at its nominal value and marketable securities at their fair value.

Placings with and advances to banks

(audited)

Placings with and advances to banks are typically unsecured. At 31 December 2024, HK$76,221m (2023: HK$83,756m) of placings with and advances to banks rated CRR 1 to 5, including loan commitments, are uncollateralised.

Derivatives

(audited)

The ISDA Master Agreement is our preferred agreement for documenting derivatives activity. It provides the contractual framework within which dealing activity across a full range of over-the-counter ('OTC') products is conducted, and contractually binds both parties to apply close-out netting across all outstanding transactions covered by an agreement if either party defaults or another pre-agreed termination event occurs. It is common, and the Group's preferred practice, for the parties to execute a Credit Support Annex ('CSA') in conjunction with the ISDA Master Agreement. Under a CSA, collateral is passed between the parties to mitigate the counterparty risk inherent in outstanding positions. The majority of our CSAs are with financial institutional clients. Please refer to note 45 'Offsetting of financial assets and financial liabilities' for further details.

Other credit risk exposures

(audited)

In addition to collateralised lending described above, other credit enhancements are employed and methods used to mitigate credit risk arising from financial assets. These are described in more detail below.

Government, bank and other financial institution-issued securities may benefit from additional credit enhancement, notably through government guarantees that reference these assets. Corporate-issued debt securities are primarily unsecured. Debt securities issued by banks and financial institutions include asset-backed securities ('ABS') and similar instruments, which are supported by underlying pools of financial assets. Credit risk associated with ABS is reduced through the purchase of credit default swap ('CDS') protection.

The Group's maximum exposure to credit risk includes financial guarantees and similar arrangements that it issues or enters into, and loan commitments to which it is irrevocably committed. Depending on the terms of the arrangement, the Group may have recourse to additional credit mitigation in the event that a guarantee is called upon or a loan commitment is drawn and subsequently defaults. The risks and exposures from these are captured and managed in accordance with the Group's overall credit risk management policies and procedures.

Collateral and other credit enhancements obtained

(audited)

The Group obtained assets by taking possession of collateral held as security, or calling other credit enhancement. The nature of these assets held as at 31 December 2024 are residential properties with carrying amount of HK$220m (2023: HK$118m), commercial properties of HK$5m (2023: nil) and vehicles of HK$4m (2023: HK$1m).

(b) Treasury Risk

Overview

(unaudited)

Treasury risk is the risk of having insufficient capital, liquidity or funding resources to meet financial obligations and satisfy regulatory requirements, including the risk of adverse impact on earnings or capital due to foreign exchange exposures, as well as changes in market interest rates, together with pension risk.

Treasury risk arises from changes to the respective resources and risk profiles driven by customer behaviour, management decisions or the external environment.

Approach and policy

(unaudited)

Main objective in the management of treasury risk is to maintain appropriate levels of capital, liquidity, funding, foreign exchange and market risk to support business strategy, and meet regulatory and stress testing-related requirements.

The approach to treasury management is driven by our strategic and organisational requirements, taking into account the regulatory, economic and commercial environment. We aim to maintain a strong capital and liquidity base to support the risks inherent in our business and invest in accordance with our strategy, meeting both group and local regulatory requirements at all times.

Our policy is underpinned by our risk management framework. The risk management framework incorporates a number of measures aligned to our assessment of risks for both internal and regulatory purposes. These risks include credit, market, operational, pensions, structural and transactional foreign exchange risk, and interest rate risk in the banking book.

Treasury risk management

Key developments in 2024

(unaudited)

- Initiatives and readiness activities were undertaken to prepare for the implementation of the Basel III Reform package from 1 January 2025. Our Structural FX risk management strategy was revisited accordingly under the new regulatory regime.
- Continued to enhance our recovery and resolution capabilities, in line with our preferred resolution strategy and regulatory expectations.
- Initiatives taken to strengthen our regulatory reporting process through enhancing consistency and improving controls. This multifaceted programme includes data enhancement, transformation of the reporting systems and uplift to the control environment over the report production process.
- Continued to increase the stabilisation of our net interest income ('NII') as interest rate expectations fluctuated, driven by central bank rate increases and a reassessment of the trajectory of inflation in major economies.

Governance and structure

(unaudited)

The Board approves the policy and risk appetite for capital risk, liquidity and funding risk, and Interest Rate Risk in the Banking Book ('IRRBB'). It is supported and advised by the RC.

The Asset, Liability and Capital Management ('ALCM') team actively manages capital, liquidity risk and funding risk and structural foreign exchange risk on an on-going basis and provides support to the Asset and Liability Management Committee ('ALCO'), and is overseen by the Treasury Risk Management function and the Risk Management Meeting ('RMM'). Markets Treasury has the responsibility for cash and liquidity management.

The ALCM team further manages interest rate risk in the banking book, maintaining the transfer pricing framework and informing the ALCO the overall banking book interest rate exposure. Banking book interest rate positions may be transferred to be managed by Markets Treasury, within the market risk limits approved by the RMM.

Treasury Risk Management function carries out independent review, challenge and assurance of the appropriateness of the risk management activities undertaken by ALCM and Markets Treasury.

Internal Audit provides independent assurance that risk is managed effectively.

(b) Treasury Risk

Capital Risk

Overview

(audited)

The Group's objective for managing capital is to maintain a strong capital base to support the development of its business and to meet regulatory capital requirements at all times. The Group recognises the impact of different level of equity capital on shareholder returns and seeks to maintain a prudent balance between advantages and flexibility provided by a strong capital position and higher returns on equity through greater leverage.

Framework

Our capital management approach is underpinned by a Global Capital Risk Policy and supporting frameworks for Recovery and Resolution Planning and Stress Testing. The policy sets out our approach to determining key capital risk appetites for Common Equity Tier 1 ('CET1'), Tier 1 ('T1'), Total capital, loss-absorbing capacity ('LAC') and leverage ratio, which enables us to manage our capital in a consistent manner. Regulatory capital and economic capital are the two primary measures used for the management and control of capital.

Capital measures:

– regulatory capital is the capital which we are required to hold in accordance with the rules established by regulator; and
– economic capital is the internally calculated capital requirement to support risks to which the Group is exposed to and forms a core part of the internal capital adequacy assessment process ('ICAAP').

ICAAP is an assessment of the Group's capital position, outlining both regulatory and internal capital resources and requirements resulting from our business model, strategy, risk profile and management, performance and planning, risks to capital, and the implications of stress testing. ICAAP is driven by an assessment of risks, including credit, market, operational, pensions, insurance, structural foreign exchange, interest rate risk in the banking book. Climate risk is also considered as part of the ICAAP, and the Group continues to develop the approach for climate risk management. The ICAAP supports the determination of the capital risk appetites, and enables the assessment and determination of capital requirements by regulator. Banking subsidiary prepare ICAAPs in line with global guidance, while considering their local regulatory regimes to determine their own risk appetites and ratios.

An annual Group capital plan is prepared and approved by the Board with the objectives of maintaining an optimal amount of capital and a suitable mix between different components of capital. The Group manages its own capital within the context of the approved annual capital plan, which determines the level of risk-weighted asset ('RWA') growth as well as the optimal amount and components of capital required to support planned business growth. Capital and RWA are monitored and managed against the plan, with capital forecasts reported to relevant governance committees. Each subsidiary manages its own capital to support its planned business growth and meet its local regulatory requirements within the context of the approved annual Group capital plan. As part of the Group's capital management objectives, subsidiary with capital generated in excess of planned requirement will return to the Bank, normally by way of dividends. The Group also raised subordinated debt in accordance with HSBC Group's guidelines regarding cost, market conditions, timing and maturity profile.

The Bank is primarily a provider of equity capital to its subsidiaries. These investments are substantially funded by the Bank's own capital, issuance and profit retention. The Bank seeks to maintain a prudent balance between the composition of its capital and that of its investment in subsidiaries.

The principal forms of capital are included in the following balances on the Consolidated Balance Sheet: share capital, retained profits, other equity instruments and other reserves. Capital also includes impairment allowances and regulatory reserve for general banking risks as allowed under Banking (Capital) Rules.

Regulatory capital requirements

(audited)

The HKMA supervises the Group on a consolidated and solo-consolidated basis and, as such, receives information on the capital adequacy of, and sets capital requirements for, the Group as a whole and on a solo-consolidated basis. Individual banking subsidiaries and branches are directly regulated by their local banking supervisors, who set and monitor their capital adequacy requirements. Certain non-banking financial subsidiaries are also subject to the supervision and capital requirements of local regulatory authorities.

(b) Treasury Risk

Capital Risk continued

Regulatory capital requirements continued

(audited)

In accordance with the Banking (Capital) Rules under Basel III effective as of 31 December 2024, the Group used the advanced internal ratings-based ('IRB') approach to calculate its credit risk for the majority of its non-securitisation exposures. For collective investment scheme exposures, the Group used the look-through approach to calculate the risk-weighted amount. For counterparty credit risk, the Group used standardised (counterparty credit risk) approach to calculate its default risk exposures for derivatives, and the comprehensive approach for securities financing transactions. For credit valuation adjustment ('CVA'), the Group used standardised CVA method to calculate CVA capital charge. For market risk, the Group used an internal models approach to calculate its general market risk for the risk categories of interest rate and foreign exchange (including gold) exposures and the standardised (market risk) approach for calculating other market risk positions. For operational risk, the Group used the standardised (operational risk) approach to calculate its operational risk.

During the year, the Group complied with all of the externally imposed capital requirements by the HKMA.

Basel III

(unaudited)

The Basel III capital rules set out the minimum CET1 capital requirement of 4.5% and total capital requirement of 8%.

At 31 December 2024, the capital buffers applicable to the Group include the Capital Conservation Buffer ('CCB'), the Countercyclical Capital Buffer ('CCyB') and the Higher Loss Absorbency ('HLA') requirements for Domestic Systemically Important Banks ('D-SIB'). The CCB is 2.5% and is designed to ensure banks build up capital outside periods of stress. The CCyB is set on an individual country/territory basis and is built up during periods of excess credit growth to protect against future losses. The CCyB for Hong Kong and the list of D-SIB are regularly reviewed and last announced by the HKMA on 18 October 2024 and 31 December 2024 respectively. In its latest announcement, the HKMA reduced the CCyB for Hong Kong from 1.0% to 0.5% and maintained the D-SIB designation as well as HLA requirement at 1.0% for the Group.

Loss-absorbing capacity requirements

(unaudited)

The HKMA classified the Bank as a material subsidiary of HSBC's Asian resolution group in 2019 and required the Bank to comply with internal loss-absorbing capacity requirements under the Financial Institutions (Resolution) (Loss-absorbing Capacity Requirements – Banking Sector) Rules.

Leverage ratio

(unaudited)

The leverage ratio was introduced into the Basel III framework as a non-risk-based backstop limit, to supplement risk-based capital requirements. It aims to constrain the build-up of excess leverage in the banking sector, introducing additional safeguards against model risk and measurement errors. The ratio is a volume-based measure calculated as Tier 1 capital divided by total on-balance sheet and off-balance sheet exposures. The minimum leverage ratio requirement in Hong Kong is 3%.

Capital adequacy at 31 December 2024

(unaudited)

The following tables show the capital base, RWAs and capital ratios as contained in the 'Capital Adequacy Ratio' return required to be submitted to the HKMA by the Bank on consolidated basis as specified by the HKMA under the requirements of section 3C(1) of the Banking (Capital) Rules. The basis is different from that for accounting purposes. Further information on the regulatory consolidation basis is set out in the Banking Disclosure Statement that will be available in the Regulatory Disclosures section of our website www.hangseng.com.

The Bank and its subsidiaries may need to maintain a regulatory reserve to satisfy the provisions of the Banking Ordinance and local regulatory requirements for prudential supervision purposes. At 31 December 2024, the effect of this requirement is to restrict the amount of reserves which can be distributed by the Group to shareholders by HK$734m (31 December 2023: nil) .

We closely monitor and consider future regulatory change and continue to evaluate the impact upon our capital requirements of regulatory developments. The Basel III final reform package was implemented in Hong Kong on 1 January 2025, covering credit risk, operational risk, market risk, credit valuation adjustment and the output floor. The approaches outlined in the above Regulatory capital requirements will be updated to align with the new standards. The RWA output floor under the Basel III final reform package will be phased in over five years from initial implementation. Any impact from the output floor would be towards the end of the phase in period.

(b) Treasury Risk

Capital Risk continued

Capital Base

(unaudited)

The following table sets out the composition of the Group's capital base under Basel III at 31 December 2024 and 31 December 2023. A more detailed breakdown of the capital position and a full reconciliation between the Group's accounting and regulatory balance sheets will be available in the Banking Disclosure Statement in the Regulatory Disclosures section of our website www.hangseng.com.

	2024	2023
Common Equity Tier 1 ('CET1') Capital		
Shareholders' equity	152,799	151,744
– Shareholders' equity per balance sheet	169,522	168,131
– Additional Tier 1 ('AT1') perpetual capital instruments	(11,587)	(11,744)
– Unconsolidated subsidiaries	(5,136)	(4,643)
Non-controlling interests	–	–
– Non-controlling interests per balance sheet	42	53
– Non-controlling interests in unconsolidated subsidiaries	(42)	(53)
Regulatory deductions to CET1 capital	(32,394)	(29,485)
– Cash flow hedge reserve	134	37
– Changes in own credit risk on fair valued liabilities	(1)	(4)
– Property revaluation reserves*	(22,736)	(24,570)
– Regulatory reserve	(734)	–
– Intangible assets	(3,498)	(3,388)
– Defined benefit pension fund assets	(269)	–
– Deferred tax assets net of deferred tax liabilities	(389)	(481)
– Valuation adjustments	(161)	(153)
– Excess of total expected loss amount over total eligible provisions under the IRB approach	(4,740)	(926)
Total CET1 Capital	120,405	122,259
AT1 Capital		
Total AT1 capital before and after regulatory deductions	11,587	11,744
– Perpetual capital instruments	11,587	11,744
Total AT1 Capital	11,587	11,744
Total Tier 1 ('T1') Capital	131,992	134,003
Tier 2 ('T2') Capital		
Total T2 capital before regulatory deductions	10,507	11,275
– Property revaluation reserves*	10,231	11,056
– Impairment allowances and regulatory reserve eligible for inclusion in T2 capital	276	219
Regulatory deductions to T2 capital	(1,045)	(1,045)
– Significant capital investments in unconsolidated financial sector entities	(1,045)	(1,045)
Total T2 Capital	9,462	10,230
Total Capital	141,454	144,233

* Includes the revaluation surplus on investment properties which is reported as part of retained profits and related adjustments made in accordance with the Banking (Capital) Rules issued by the HKMA.

(b) Treasury Risk

Capital Risk continued

Risk-weighted assets by risk type

(unaudited)

	2024	2023
Credit risk	**595,975**	592,283
Market risk	**14,749**	19,898
Operational risk	**69,358**	62,088
Total	**680,082**	674,269

Capital ratios (as a percentage of risk-weighted assets)

(unaudited)

The capital ratios on consolidated basis calculated in accordance with the Banking (Capital) Rules are as follows:

	2024	2023
CET1 capital ratio	**17.7%**	18.1%
T1 capital ratio	**19.4%**	19.9%
Total capital ratio	**20.8%**	21.4%

In addition, the capital ratios of all tiers as of 31 December 2024 would be reduced by approximately 0.9 percentage point after the prospective fourth interim dividend payment for 2024 (31 December 2023: reduced by approximately 0.9 percentage point after the prospective fourth interim dividend payment for 2023). The following table shows the pro-forma basis position of the capital ratios after the prospective interim dividend.

	Pro-forma 2024	Pro-forma 2023
CET1 capital ratio	**16.8%**	17.2%
T1 capital ratio	**18.5%**	19.0%
Total capital ratio	**19.9%**	20.5%

Leverage ratio

(unaudited)

	2024	2023
Leverage ratio	**8.0%**	8.5%
T1 capital	**131,992**	134,003
Exposure measure	**1,657,571**	1,568,958

Detailed breakdown of the Group's leverage exposure measure and a summary comparison table reconciling the assets of the Group's accounting balance sheet with the leverage exposure measure using the standard templates as specified by the HKMA will be available in the Banking Disclosure Statement in the Regulatory Disclosures section of our website www.hangseng.com.

Dividend policy

(unaudited)

Objective

The Bank's medium to long term dividend objective is to maintain steady dividends in light of profitability, regulatory requirements, growth opportunities and the operating environment. Its roadmap is designed to generate increasing shareholders' value through strategic business growth. The Bank would balance solid yields with the longer-term reward of sustained share price appreciation.

Considerations

The declaration of dividends is made at the discretion of the Board, which will take into account all relevant factors including the following:

- regulatory requirements;
- financial results;
- level of distributable reserves;
- general business conditions and strategies;
- strategic business plan and capital plan;
- statutory and regulatory restrictions on dividend payment; and
- any other factors the Board may deem relevant.

Phasing and Timing

Under normal circumstances and if the Board determines to declare a dividend at its discretion, dividends would be declared on a quarterly basis. The phasing of dividends would be planned on a prudent basis to allow for any unforeseen events, which might arise towards the end of an accounting period. Phasing of dividends would also take account of the volatility of the Bank's profits.

Other financial information

Other financial information required under the Banking (Disclosure) Rules and Financial Institutions (Resolution) (Loss-absorbing Capacity Requirements – Banking Sector) Rules can be viewed in the Banking Disclosure Statement that will be available in the Regulatory Disclosures section of our website www.hangseng.com.

(b) Treasury Risk

Non-trading book foreign exchange exposures

Structural foreign exchange exposures

(unaudited)

Structural foreign exchange exposures arise from the capital invested or net assets in foreign operation. A foreign operation is an entity that is a subsidiary, branch of a reporting entity, the activities of which are based or conducted in a country or currency other than those of the reporting entity. An entity's functional reporting currency is normally that of the primary economic environment in which the entity operates.

Exchange differences on structural exposures are recognised in other comprehensive income ('OCI'). The Group uses Hong Kong dollar as our presentation currency in our consolidated financial statements. Therefore, our consolidated balance sheet is affected by exchange differences between Hong Kong dollar and all the non-Hong Kong dollar functional currencies of underlying foreign operations.

Our structural foreign exchange exposures are managed with the primary objective of ensuring, where practical, that our consolidated capital ratios and the capital ratios of foreign operations subject to minimum regulatory capital requirements are largely protected from the effect of changes in exchange rates.

The Group's foreign exchange exposures are prepared in accordance with the HKMA 'Return of Foreign Currency Position – (MA(BS)6)'.

For details of the Group's structural and non-structural foreign currency positions, please refer to the Banking Disclosure Statement that will be available in the 'Regulatory Disclosures' section of the Bank's website.

Transactional foreign exchange exposures

(unaudited)

Transactional foreign exchange exposures arise from transactions in the banking book generating profit and loss or OCI reserves in a currency other than the reporting currency of the operating entity. Transactional foreign exchange exposure generated through profit and loss is periodically transferred to Global Markets and managed within limits. Transactional foreign exchange exposure generated through OCI reserves is managed within an agreed limit framework.

Liquidity and funding risk

Overview

(audited)

Liquidity risk is the risk that we do not have sufficient resources to meet our financial obligations when they fall due, or can only secure them at excessive cost. This may cause potential breaches in regulatory or internal metrics such as the Liquidity Coverage Ratio ('LCR') or the Internal Liquidity Metrics ('ILM'). Funding Risk is the risk that an entity does not have sufficiently stable and diverse sources of funding or the funding structure is inefficient. This may cause potential breaches in regulatory or internal metrics such as the Net Stable Funding Ratio ('NSFR').

The Group has comprehensive policies, metrics and controls to manage liquidity and funding risk. The Group manages liquidity and funding risk at an operating entity level to make sure that obligations can be met in the jurisdiction where they fall due, generally without reliance on other parts of the Group.

The Group is required to meet internal and applicable regulatory requirements at all times. These requirements are assessed through the ILAAP, which ensures that we have robust strategies, processes and systems for the identification, measurement, management and monitoring of liquidity and funding risk over an appropriate set of time horizons, including intra-day. The ILAAP supports determination of liquidity and funding risk appetite and also assesses the capability to manage liquidity and funding effectively. Liquidity and funding risk metrics are set and managed locally but are subject to global review and challenge to ensure consistency of approach and application of the Group's policies and controls.

(b) Treasury Risk

Liquidity and funding risk continued

Framework

(audited)

ALCM teams are responsible for the application of policies and controls at a local operating entity level. The elements of liquidity and funding risk management framework are underpinned by a robust governance framework, with the two major elements being:

- ALCOs at the Group and entity level; and
- Annual ILAAP support determination of risk appetite.

The Group is required to prepare an ILAAP document at appropriate frequency. Compliance with liquidity and funding requirements is monitored and reported to ALCO, RMM and Executive Committee on a regular basis. Liquidity and Funding Risk management processes include:

- maintaining compliance with relevant regulatory requirements of the reporting entity;
- projecting cash flows under various stress scenarios and considering the level of liquid assets necessary in relation thereto;
- monitoring liquidity and funding ratios against internal and regulatory requirements;
- maintaining a diverse range of funding sources with adequate back-up facilities;
- managing the concentration and profile of term funding;
- managing contingent liquidity commitment exposures within pre-determined limits;
- maintaining debt financing plans;
- monitoring depositor concentration in order to avoid undue reliance on large individual depositors and ensuring a satisfactory overall funding mix; and
- maintaining liquidity and funding contingency plans. These plans identify early indicators of stress conditions and describe actions to be taken during stress, while minimising adverse long-term implications for the business.

Governance

(audited)

ALCM teams apply the Group's policies and controls at both an individual entity and Group level, and are responsible for the implementation of Group-wide and local regulatory policy at a legal entity level. Markets Treasury has responsibility for cash and liquidity management.

Treasury Risk Management carries out independent review, challenge and assurance of the appropriateness of the risk management activities undertaken by ALCM and Markets Treasury. Their work includes setting control standards, advising on policy implementation, and reviewing and challenging of reporting.

Internal Audit provides independent assurance that risk is managed effectively.

Management of liquidity and funding risk

(audited)

Funding and liquidity plans form part of the financial resource plan that is approved by the Board. The Board-level risk appetite measures are the LCR, ILM and NSFR. An appropriate funding and liquidity profile is managed through a wider set of measures:

- a minimum LCR requirement;
- a minimum NSFR requirement;
- an ILM requirement;
- a minimum liquidity requirement in material currencies;
- a depositor concentration limit;
- cumulative term funding maturity concentration limit;
- intra-day liquidity;
- the application of liquidity funds transfer pricing; and
- forward-looking funding assessments.

(b) Treasury Risk

Liquidity and funding risk continued

Management of liquidity and funding risk continued

(audited)

Liquidity coverage ratio

(unaudited)

The LCR aims to ensure that a bank has sufficient unencumbered high-quality liquid assets ('HQLA') to meet its liquidity needs in a 30-calendar-day liquidity stress scenario.

At 31 December 2024, the LCR of all the Group's principal operating entities were well above regulatory minimums and above the internally expected levels established by the Board.

Net stable funding ratio

(unaudited)

The Group uses the NSFR as a basis for ensuring operating entities raise sufficient stable funding to support their business activities. The NSFR requires institutions to maintain minimum amount of stable funding based on assumptions of asset liquidity.

At 31 December 2024, the NSFR of all the Group's principal operating entities were above the internally expected levels established by the Board.

Depositor concentration and term funding maturity concentration

(unaudited)

The LCR and NSFR metrics assume a stressed outflow based on a portfolio of depositors within each deposit segment. The validity of these assumptions is challenged if the portfolio of depositors is not large enough to avoid depositor concentration. Operating entities are exposed to term refinancing concentration risk if the current maturity profile results in future maturities being overly concentrated in any defined period.

At 31 December 2024, the depositor concentration and term funding maturity concentration of all the Group's principal operating entities were within the internally expected levels established by the Board.

Sources of funding

(unaudited)

Our primary sources of funding are customer deposits. We issue wholesale securities to supplement our customer deposits and change the currency mix or maturity profile of our liabilities.

Currency mismatch

(unaudited)

Group policy requires all operating entities to manage currency mismatch risk for material currencies. Limits are set to ensure that outflows can be met, given assumptions on stressed capacity in the FX swap markets.

Additional collateral obligations

(unaudited)

Under the terms of our current collateral obligations under derivative contracts (which are International Swaps and Derivatives Association ('ISDA') compliant CSA contracts), the additional collateral required to post in the event of downgrade in credit ratings is nil.

(b) Treasury Risk

Liquidity and funding risk continued

Management of liquidity and funding risk continued

(audited)

Liquidity and funding risk in 2024

(unaudited)

The Group is required to calculate its LCR and NSFR on a consolidated basis in accordance with rule 11(1) of The Banking (Liquidity) Rules ('BLR') and to maintain both LCR and NSFR of not less than 100%.

The average LCRs for the reportable periods are as follows:

	Quarter ended							
	31 Dec 2024	**30 Sep 2024**	**30 Jun 2024**	**31 Mar 2024**	31 Dec 2023	30 Sep 2023	30 Jun 2023	31 Mar 2023
Average LCR	**335.2%**	**307.9%**	**277.2%**	**276.8%**	260.6%	240.1%	245.0%	276.7%

The liquidity position of the Group remained strong and above the statutory requirement of 100%. The average LCR increased from 260.6% for the quarter ended 31 December 2023 to 335.2% for the quarter ended 31 December 2024, mainly reflecting the increase in holding of HQLA as a result of the increase in commercial surplus.

The composition of the Group's HQLA as defined under Schedule 2 of the BLR is shown as below. The majority of the HQLA held by the Group are Level 1 assets which consist mainly of government debt securities.

	Weighted amount (average value) for the quarter ended							
	31 Dec 2024	**30 Sep 2024**	**30 Jun 2024**	**31 Mar 2024**	31 Dec 2023	30 Sep 2023	30 Jun 2023	31 Mar 2023
Level 1 assets	**484,743**	**428,247**	**393,516**	**379,665**	369,952	348,096	402,508	454,223
Level 2A assets	**11,355**	**9,739**	**10,125**	**10,378**	10,920	10,566	12,182	12,928
Level 2B assets	**3,486**	**4,144**	**3,544**	**3,187**	2,996	2,420	3,293	4,044
Total	**499,584**	**442,130**	**407,185**	**393,230**	383,868	361,082	417,983	471,195

The NSFR for the reportable periods are as follows:

	At quarter ended							
	31 Dec 2024	**30 Sep 2024**	**30 Jun 2024**	**31 Mar 2024**	31 Dec 2023	30 Sep 2023	30 Jun 2023	31 Mar 2023
NSFR	**181.0 %**	**178.5 %**	**168.2 %**	**171.7 %**	168.4 %	165.8 %	161.4 %	163.6 %

The funding position of the Group remained strong and stable in 2024. The NSFR was 181.0% at the quarter ended 31 December 2024 (168.4% as at 31 December 2023), highlighting a surplus of available stable funding relative to the required stable funding requirement.

To comply with the Banking (Disclosure) Rules, the details of liquidity information will be found in the Regulatory Disclosures section of our website www.hangseng.com.

(b) Treasury Risk

Liquidity and funding risk continued

Analysis of cash flows payable under financial liabilities by remaining contractual maturities

(audited)

	Within 1 month	Over 1 month but within 3 months	Over 3 months but within 1 year	Over 1 year but within 5 years	Over 5 years	Total
At 31 December 2024						
Deposits from banks	**14,261**	**21**	**–**	**–**	**–**	**14,282**
Current, savings and other deposit accounts	**837,711**	**307,991**	**95,288**	**5,326**	**–**	**1,246,316**
Repurchase agreements – non-trading	**18,416**	**994**	**–**	**–**	**–**	**19,410**
Trading liabilities	**18,093**	**–**	**–**	**–**	**–**	**18,093**
Derivative financial instruments	**13,159**	**155**	**(51)**	**220**	**–**	**13,483**
Financial liabilities designated at fair value	**14,871**	**13,311**	**9,401**	**1,525**	**242**	**39,350**
Certificates of deposit in issue	**471**	**4,502**	**22**	**–**	**–**	**4,995**
Other financial liabilities	**39,371**	**5,760**	**4,048**	**661**	**24**	**49,864**
Subordinated liabilities	**–**	**402**	**7,346**	**23,572**	**–**	**31,320**
	956,353	**333,136**	**116,054**	**31,304**	**266**	**1,437,113**
Loan commitments	**495,092**	**–**	**–**	**–**	**–**	**495,092**
Contingent liabilities and financial guarantee contracts	**22,848**	**–**	**–**	**–**	**–**	**22,848**
	517,940	**–**	**–**	**–**	**–**	**517,940**

	Within 1 month	Over 1 month but within 3 months	Over 3 months but within 1 year	Over 1 year but within 5 years	Over 5 years	Total
At 31 December 2023						
Deposits from banks	19,699	17	–	–	–	19,716
Current, savings and other deposit accounts	813,754	187,169	146,553	14,234	–	1,161,710
Repurchase agreements – non-trading	11,819	969	–	–	–	12,788
Trading liabilities	35,227	–	–	–	–	35,227
Derivative financial instruments	13,803	39	(40)	269	–	14,071
Financial liabilities designated at fair value	14,077	14,106	14,412	3,716	261	46,572
Certificates of deposit in issue	118	2,607	7,273	–	–	9,998
Other financial liabilities	14,423	6,122	4,516	830	99	25,990
Subordinated liabilities	–	475	1,531	28,627	3,221	33,854
	922,920	211,504	174,245	47,676	3,581	1,359,926
Loan commitments	503,632	–	–	–	–	503,632
Contingent liabilities and financial guarantee contracts	22,973	–	–	–	–	22,973
	526,605	–	–	–	–	526,605

(b) Treasury Risk

Liquidity and funding risk continued

Analysis of cash flows payable under financial liabilities by remaining contractual maturities continued

(audited)

The balances in the above tables incorporate all cash flows relating to principal and future coupon payments on an undiscounted basis. Trading liabilities and trading derivatives have been included in the 'Within one month' time bucket as they are typically held for short periods of time. The undiscounted cash flows payable under hedging derivative liabilities are classified according to their contractual maturity. Liabilities under investment contracts are classified in accordance with their contractual maturity. Undated investment contracts are included in the 'Over 5 years' time bucket. The undiscounted cash flows potentially payable under loan commitments and financial guarantee contracts are classified on the basis of the earliest date they can be called. Cash flows payable in respect of customer accounts are primarily contractually repayable on demand or at short notice.

Interest Rate Risk in the Banking Book

Assessment and risk appetite

(unaudited)

Interest rate risk in the banking book is the risk of an adverse impact to earnings or capital due to changes in market interest rates. It is generated by our non-traded assets and liabilities, specifically loans, deposits and financial instruments that are not held for trading intent or held in order to hedge positions held with trading intent. Interest rate risk that can be economically hedged may be transferred to the Markets Treasury. Hedging is generally executed through interest rate derivatives or fixed-rate government bonds. Any interest rate risk that Markets Treasury cannot economically hedge is not transferred and will remain within the global business where the risks originate.

The ALCM and Markets Treasury functions use a number of measures to monitor and control interest rate risk in the banking book, including:

- net interest income sensitivity;
- economic value of equity sensitivity;
- hold-to-collect-and-sell value at risk ('VaR'); and
- hold-to-collect-and-sell present value of a basis point ('PVBP').

Net interest income sensitivity

(audited)

A principal part of our management of non-traded interest rate risk is to monitor the sensitivity of expected net interest income ('NII') under varying interest rate scenarios (i.e. simulation modelling), where all other economic variables are held constant. This monitoring is undertaken at an entity level by local ALCOs, where entities calculate one-year NII sensitivity across a range of interest rate scenarios.

The table below sets out the assessed impact to a hypothetical base case projection of our NII under an immediate shock of 100bps to the current market-implied path of interest rates across all currencies on 1 January 2025 (effects in the coming 12 months).

NII sensitivity figures represent the effect of pro forma movements in projected yield curves based on a static balance sheet size and structure. The exception to this is where the size of the balances or repricing is deemed interest rate sensitive, for example, early prepayment of mortgages. These sensitivity calculations do not incorporate actions that would be taken by Markets Treasury or in the business that originates the risk to mitigate the effect of interest rate movements.

The NII sensitivity calculations assume that interest rates of all maturities move by the same amount in the 'up-shock' scenario. The sensitivity calculations in the 'down-shock' scenarios reflect no floors to the shocked market rates. However, customer product-specific interest rate floors are recognised where applicable.

An immediate interest rate rise of 100bps would increase projected NII for the 12 months to 31 December 2025 by HK$1,488m. An immediate interest rate fall of 100bps would decrease projected NII for the 12 months to 31 December 2025 by HK$2,139m.

The sensitivity of NII for 12 months as at 31 December 2024 decreased by $298m in the plus 100bps parallel shock and by $67m in the minus 100bps parallel shock, when compared with 31 December 2023. The key drivers of the reduction in NII sensitivity are the increase in stabilisation activities in line with our strategy.

(b) Treasury Risk

Interest Rate Risk in the Banking Book continued

Net interest income sensitivity continued

(audited)

The expected net interest income sensitivity is described as follows:

	Change in 2025 expected net interest income		Change in 2024 expected net interest income	
	100bp parallel increase	100bp parallel decrease	100bp parallel increase	100bp parallel decrease
– HKD	**612**	**(923)**	895	(1,038)
– USD	**(67)**	**(111)**	191	(213)
– Other	**943**	**(1,105)**	701	(955)
Total	**1,488**	**(2,139)**	1,787	(2,206)

Economic value of equity sensitivity

(unaudited)

Economic value of equity ('EVE') measures the present value of our banking book assets and liabilities excluding equity, based on a run-off balance sheet. Economic value of equity sensitivity measures the impact to EVE from a movement in interest rates, including the assumed term profile of non-maturing deposits having adjusted for stability and price sensitivity. Operating entities are required to monitor EVE sensitivities as a percentage of capital resources.

The Group's EVE sensitivity is prepared in accordance with the HKMA 'Return of Interest Rate Risk Exposure -(MA(BS)12A)'. For details of the Group's EVE sensitivity, please refer to the Banking Disclosure Statement that will be available in the 'Regulatory Disclosures' section of the Bank's website.

Sensitivity of reserves

(audited)

The Group monitors the sensitivity of reported cash flow hedge reserves to interest rate movements on a quarterly basis by assessing the expected reduction in valuation of cash flow hedge due to parallel movements of plus or minus 100bps in all yield curves. These particular exposures form only a part of the Group's overall interest rate risk exposures.

The following table describes the sensitivity of reported cash flow hedge reserves to the stipulated movements in yield curves. The sensitivities are indicative and based on simplified scenarios.

(b) Treasury Risk

Interest Rate Risk in the Banking Book continued

Sensitivity of reserves continued

(audited)

	At 31 December 2024	Maximum impact	Minimum impact
+ 100 basis points parallel move in all yield curves	**(2,338)**	**(2,338)**	**(896)**
As a percentage of shareholders' equity at 31 December 2024 (%)	**(1.38)**	**(1.38)**	**(0.53)**
- 100 basis points parallel move in all yield curves	**2,373**	**2,373**	**956**
As a percentage of shareholders' equity at 31 December 2024 (%)	**1.40**	**1.40**	**0.56**

	At 31 December 2023	Maximum impact	Minimum impact
+ 100 basis points parallel move in all yield curves	(240)	(253)	(212)
As a percentage of shareholders' equity at 31 December 2023 (%)	(0.14)	(0.15)	(0.13)
- 100 basis points parallel move in all yield curves	318	318	266
As a percentage of shareholders' equity at 31 December 2023 (%)	0.19	0.19	0.16

(c) Market risk

Overview

Market risk is the risk of an adverse financial impact on trading activities arising from changes in market parameters such as interest rates, foreign exchange rates, asset prices, volatilities, correlations and credit spreads. Market risk arises from both trading portfolios and non-trading portfolios.

Trading portfolios comprise positions held for client servicing and market-making, with the intention of short-term resale and/or to hedge risks resulting from such positions.

Key developments in 2024

(unaudited)

There were no material changes to our policies and practices for the management of market risk in 2024.

Governance and structure

(unaudited)

The following diagram summarises the main business areas where trading market risks reside and the market risk measures used to monitor and limit exposures.

	Trading Risk
Risk Type	– Foreign exchange & commodities – Interest rates – Credit spreads – Equities
Risk Measure	Value at risk/Sensitivity/Stress testing

The objective of the Group's risk management policies and measurement techniques is to manage and control market risk exposures to optimise return on risk while maintaining a market profile consistent with the established risk appetite.

(c) Market risk

Governance and structure continued

(unaudited)

Market risk is managed and controlled through limits approved by the Group Chief Risk and Compliance Officer. These limits are allocated across business lines and to the Group's legal entities. Each major operating entity has an independent market risk management and control sub-function, which is responsible for measuring, monitoring and reporting market risk exposures against limits on a daily basis. Each operating entity is required to assess the market risks arising in its business and to transfer them either to its local Global Markets unit for management, or to separate books managed under the supervision of the local ALCO. The Traded Risk function enforces the controls around trading in permissible instruments approved for each site as well as changes that follow completion of the new product approval process. Traded Risk also restricts trading in the more complex derivative products to only those offices with appropriate levels of product expertise and control systems.

Key risk management processes

Monitoring and limiting market risk exposures

(unaudited)

The Group's objective is to manage and control market risk exposures while maintaining a market profile consistent with the Group's risk appetite.

The Group uses a range of tools to monitor and limit market risk exposures including sensitivity analysis, value at risk ('VaR') and stress testing.

Sensitivity analysis

(audited)

Sensitivity analysis measures the impact of movements in individual market factors on specific instruments or portfolios including interest rates, foreign exchange rates and equity prices. The Group uses sensitivity measures to monitor the market risk positions within each risk type. Granular sensitivity limits are set for trading desks with consideration of market liquidity, customer demand and capital constraints, among other factors.

Value at risk ('VaR')

(audited)

VaR is a technique for estimating potential losses on risk positions as a result of movements in market rates and prices over a specified time horizon and to a given level of confidence. The use of VaR is integrated into market risk management and calculated for all trading positions regardless of how the Group capitalises them. Where VaR is not calculated explicitly, the Group uses alternative tools as summarised in the 'Stress testing' section below.

The VaR models are predominantly based on historical simulation that incorporates the following features:

- historical market rates and prices, which are calculated with reference to foreign exchange rates, commodity prices, interest rates, equity prices and the associated volatilities;
- potential market movements that are calculated with reference to data from the past two years;
- Standard VaR is calculated to a 99% confidence level and using a one-day holding period; and
- Stressed VaR uses a 10-day holding period and a 99% confidence interval based on a continuous one-year historical significant stress period.

The models also incorporate the effect of the option features on the underlying exposures. The nature of the VaR models means that an increase in observed market volatility will lead to an increase in VaR without any changes in the underlying positions.

VaR model limitations

(audited)

Although a valuable guide to risk, VaR is used with awareness of its limitations. For example:

- the use of historical data as a proxy for estimating future market moves may not encompass all potential market events, particularly those that are extreme in nature. As the model is calibrated on the last 500 business days, it does not adjust instantaneously to a change in the market regime;
- the use of a one-day holding period for risk management purposes of trading books assumes that this short period is sufficient to hedge or liquidate all positions;
- the use of a 99% confidence level by definition does not take into account losses that might occur beyond this level of confidence; and
- VaR is calculated on the basis of exposures outstanding at the close of business and therefore does not reflect intra-day exposures.

(c) Market risk

Key risk management processes continued

Risk not in VaR ('RNIV') framework

(audited)

The risks not in VaR ('RNIV') framework captures and capitalises material market risks that are not adequately covered in the VaR model.

Risk factors are reviewed on a regular basis and are either incorporated directly in the VaR models, where possible, or quantified through either the VaR-based RNIV approach or a stress test approach within the RNIV framework. While VaR-based RNIVs are calculated by using historical scenarios, stress-type RNIVs are estimated on the basis of stress scenarios whose severity is calibrated to be in line with the capital adequacy requirements.

Stress testing

(audited)

Stress testing is an important procedure that is integrated into the Group's market risk management framework to evaluate the potential impact on portfolio values of more extreme, although plausible, events or movements in a set of financial variables. In such scenarios, losses can be much greater than those predicted by VaR modelling. Stress testing and reverse stress testing provide senior management with insights regarding the 'tail risk' beyond VaR.

Stress testing is implemented at legal entity and overall Group levels. A set of scenarios is used consistently across the Group. The market risk stress testing incorporates both historical and hypothetical events. Market risk reverse stress tests are designed to identify vulnerabilities in the portfolios by looking for scenarios that lead to loss levels considered severe for the relevant portfolio. These scenarios may be local or idiosyncratic in nature and complement the systematic top-down stress testing.

The risk appetite around potential stress losses for the Group is set and monitored against limits.

Trading portfolios

(unaudited)

Market risk in 2024

(unaudited)

It was a busy year on the political agenda, with the November US election being the main event. Geopolitics remained prominent amid ongoing tensions in the Middle East and the Russia-Ukraine conflict. Major central banks began their easing cycles in 2024, with the US Federal Reserve cutting its policy rate by 1% since September. In contrast, the Bank of Japan raised its overnight rate, marking the end of a prolonged period of negative interest rates and abandoning yield curve control in March.

Throughout the year, government bond yields generally trended upward, except during the third quarter, largely driven by volatile inflation figures and shifting central bank expectations. In China, the yields of Chinese government bonds slipping to decade lows driven by expectations on aggressive policy easing and demand for safe haven assets. Global equities reached multiple record highs in the US and Europe, buoyed by strong corporate earnings and positive sentiment in the technology sector. Global markets rebounded from a short period of volatility in August, triggered by the unwinding of carry trades due to rising Japanese government bond yields, US recession concerns, and equity market valuations. In foreign exchange markets, the trend of a strengthening US dollar continued against most developed and emerging market currencies. The Euro approached parity with the US dollar, while the Yen weakened to multi-decade lows. Credit markets performed positively throughout the year, with a more pronounced tightening of high-yield credit spreads compared to investment-grade spreads, despite a broad widening of spreads in August.

We continued to manage market risk prudently during 2024. Sensitivity exposures and VaR remained within appetite as the business pursued its core market-making activity in support of our customers. Market risk was managed using a complementary set of risk measures and limits, including stress testing and scenario analysis.

(c) Market risk

Trading portfolios continued

(unaudited)

VaR of the trading portfolios

Trading VaR predominantly resides within Global Markets. Interest rate risks were the main drivers of trading VaR. The VaR for trading activity on 31 December 2024 was lower comparing to that on 31 December 2023, mainly driven by interest rate trading portfolio.

The table below shows the Group's trading VaR for the following periods.

Trading value at risk, 99% 1 day[1]

(unaudited)

	At 31 December 2024	Maximum during the year	Average for the year	At 31 December 2023	Maximum during the year	Average for the year
VaR						
Total	**26**	**55**	**40**	38	58	42
Foreign exchange trading	**14**	**35**	**18**	8	11	5
Interest rate trading	**32**	**74**	**51**	34	57	43
Credit spread trading	**1**	**3**	**1**	0	1	1
Portfolio diversification[2]	**(21)**	**N/A**	**(30)**	(4)	N/A	(7)

1 Trading portfolios comprise positions arising from the market-making and warehousing of customer-derived positions.

2 Portfolio diversification is the market risk dispersion effect of holding a portfolio containing different risk types. It represents the reduction in unsystematic market risk that occurs when combining a number of different risk types, for example, interest rate and foreign exchange, together in one portfolio. It is measured as the difference between the sum of the VaR by individual risk type and the combined total VaR. A negative number represents the benefit of portfolio diversification. As the maximum and minimum occur on different days for different risk types, it is not meaningful to calculate a portfolio diversification benefit for these measures.

(c) Market risk

Trading portfolios continued

(unaudited)

Backtesting

(unaudited)

The Group routinely validates the accuracy of the VaR models by back-testing the VaR metric against both actual and hypothetical profit and loss.

Hypothetical profit and loss excludes non-modelled items such as fees, commissions and revenue of intra-day transactions.

The hypothetical profit and loss reflects the profit and loss that would be realised if positions were held constant from the end of one trading day to the end of the next. This measure of profit and loss does not align with how risk is dynamically hedged, and is not therefore necessarily indicative of the actual performance of the business.

The number of hypothetical loss back-testing exceptions, together with a number of other indicators, are used to assess model performance and to consider whether enhanced internal monitoring of a VaR model is required.

Equities exposures

(audited)

The Group's equities exposures in 2024 and 2023 are reported as 'Financial assets mandatorily measured at fair value through profit or loss', 'Financial investments' and 'Trading assets' in the consolidated financial statements. These are subject to trading limit and risk management control procedures and other market risk regime.

(d) Climate risk

(unaudited)

Overview

We adopted HSBC Group's climate risk approach which two primary drivers of climate risk have been identified:

- physical risk, which arises from the increased frequency and severity of extreme weather events, such as typhoons and floods, or chronic shifts in weather patterns or sea level risk; and
- transition risk, which arises from the process of moving to a net zero economy, including changes in government policy and legislation, technology, market-demand and reputational implications triggered by a change in stakeholder expectations, action or inaction.

In addition, the following thematic issues have been identified in relation to climate risk which are most likely to materialise in the form of reputational, regulatory compliance and litigation risks:

- net zero alignment risk, which arises from the risk of failure to meet HSBC Group's net zero commitments or failing to meet external expectations related to net zero, because of inadequate ambition and/or plans, poor execution, or inability to adapt to changes in external environment; and
- the risk of greenwashing, which arises from the act of knowingly or unknowingly making inaccurate, unclear, misleading or unsubstantiated claims regarding sustainability to the stakeholders.

(d) Climate risk

(unaudited)

Overview continued

Approach

The table below provide an overview of the climate risk drivers considered with the climate risk approach.

<table>
<caption>Climate Risk – Primary Risk</caption>
<tr><th colspan="2">Drivers</th><th>Details</th><th>Potential Impacts</th><th>Time horizons</th></tr>
<tr><td rowspan="2">Physical</td><td>Acute</td><td>Increased frequency and severity of weather events causing disruption to business operations</td><td rowspan="6">• Decreased real estate values or stranded assets
• Decreased household income and wealth
• Increased costs of legal and compliance
• Increased public scrutiny
• Decreased profitability
• Lower asset performance</td><td rowspan="6">Short term
Medium term
Long term</td></tr>
<tr><td>Chronic</td><td>Longer-term shifts in climate patterns (e.g. sustained higher temperatures, sea level rise, shifting monsoons or chronic heat waves)</td></tr>
<tr><td rowspan="4">Transition</td><td>Policy and legal</td><td>Mandates on, and regulation of products and services and/or policy support for low carbon alternatives. Litigation from parties who have suffered loss and damage from climate impacts</td></tr>
<tr><td>Technology</td><td>Replacement of existing products with lower emission options</td></tr>
<tr><td>End-demand (market)</td><td>Changing consumer demand from individuals and corporates</td></tr>
<tr><td>Reputational</td><td>Increased scrutiny following a change in stakeholder perceptions of climate-related action or inaction</td></tr>
</table>

It has been recognised that the physical impacts of climate change and the transition to net zero economy can create significant financial risks for the companies, investors and the financial systems. The Group may be affected by the financial or non-financial impacts of climate risks either directly or indirectly through its relationships with customers.

The climate risk approach aims to effectively manage the material climate risks that could impact bank operations, financial performance and stability, and reputation. The approach is informed by the evolving expectations of the regulators.

Continuous development on our climate risk capabilities across our businesses, by prioritising sectors, portfolios and counterparties with the highest impacts. We continue to make progress in enhancing our climate risk capabilities and recognise it is a long-term iterative process.

The approach will be regularly reviewed to increase coverage and incorporate maturing data, climate analytics capabilities, frameworks and tools, as well as respond to emerging industry best practice and climate risk regulations.

The climate risk approach is aligned to the HSBC Group-wide risk management framework and three lines of defence model, which sets out how the group identifies, assesses and manages its risks. For further details of the three lines of defence framework, see page 38.

(d) Climate risk

(unaudited)

Overview continued

Approach continued

The Group conducts climate risk materiality assessment annually to help it to understand how climate risk may impact across HSBC's Group risk taxonomy. The assessment considers short-term (up to 2026), medium-term (2027-2035) and long-term (2036-2050) periods. The table below provides a summary of how climate risk may impact a subset of the Group's principal risks.

Climate risk drivers	Credit risk	Traded risk	Reputational risk[1]	Regulatory compliance risk[1]	Resilience risk	Other financial and non-financial risk types
Physical risk	▲	▲			▲	▲
Transition risk	▲	▲	▲	▲	▲	▲

1 The HSBC Group's climate risk approach identifies thematic issues such as net zero alignment risk and the risk of greenwashing, which are most likely to materialise in the form of reputational, regulatory compliance and litigation risks.

Climate risk management

Key developments in 2024

The following outlines our key developments in 2024:

- Enhanced approach in assessing the impact of climate change on capital, focusing on credit, market and operational risk.
- Transition Engagement Questionnaire has been rolled out to key wholesale customers and enhanced climate risk considerations into credit risk assessments.
- Completed the HKMA long-term climate risk scenario analysis.
- Started to embed the HSBC Group's enhanced approach for managing and mitigating the risk of greenwashing.
- Climate-related training has been provided to Board and senior management, and supported staff upskilling through climate risk related professional certifications as well as internal training.

While we have made progress in enhancing our climate risk management capabilities, further work remains. This includes the need to develop additional metrics and tools to measure the Group's exposures to climate-related risks.

Governance and structure

The Board takes overall supervisory responsibility for the Group's climate strategy, overseeing executive management in developing the approach, execution and associated reporting.

The Chief Risk and Compliance Officer is responsible for the management of climate-related risks.

The Risk Management Meeting and Risk Committee receive regular updates on the climate risk profile and progress of the climate risk management.

Risk appetite

The Group's climate risk appetite forms part of the Group's risk appetite statement ('RAS') and supports the business in delivering the Group's climate strategy effectively and sustainably.

The Group's climate RAS is approved and overseen by the Board. It is supported by climate risk indicators, which are reported for oversight by the Risk Management Meeting and the Risk Committee.

Policies, processes and controls

Climate risk has been integrated into policies, processes and controls across many areas of the organisation, and they will continue to be updated as the climate risk management capabilities mature over time.

(d) Climate risk

(unaudited)

Embedding the climate risk approach

The table below provides further details on how the management of climate risk has been embedded across key risk types.

Risk type	Details
Wholesale Credit Risk	The Group has metrics in place to monitor the exposure of its wholesale corporate lending portfolio to six high transition risk sectors which are: automotive, chemicals, construction and building materials, metals and mining, oil and gas, and power and utilities. The relationship managers engage with their key wholesale customers through a transition engagement questionnaire (formerly the transition and physical risk questionnaire) to gather and assess information about the alignment of customers' business models to net zero economy and their exposure to physical & transition risks. Responses from the questionnaire are utilised to create a climate risk score for its key wholesale customers. The Group's credit policies require relationship managers to comment on climate risk factors in credit applications for new money requests and annual credit reviews. The policies also require manual credit risk rating overrides if climate is deemed to have a material impact on credit risk under 12 months if not already captured under the original credit risk rating. Key developments in 2024 include the roll-out of the transition engagement questionnaire. Also, climate risk guidelines has been developed for relationship managers to further embed climate risk considerations into credit risk assessments. Key challenges for further embedding climate risk into credit risk management relate to the availability of adequate physical risk data to assess impacts to the wholesale customers.
Retail Credit Risk	Climate risk may impact retail credit risk through an increase in credit losses on our retail mortgage portfolio due to the impact of physical risk. The retail credit risk mortgage policy requires to conduct an annual review of climate risk management procedures, to ensure they remain fit for purpose. Within the mortgage portfolios, properties or areas with potential heightened physical risk are identified and assessed locally with exposure monitored using risk indicators. A reduction in property value, higher insurance costs and insurance availability are potential future financial impacts for higher risk properties. Additionally, retail credit risk will follow the Group's guidance to implement physical risk assessment at mortgage origination for retail customer by 2025.
Treasury Risk	Climate risk may impact Treasury Risk through increased regulatory requirements and from changes to customer behaviours, which may result in increased deposit outflows. From a capital risk perspective, climate risk has been considered as part of the internal capital adequacy assessment ('ICAAP') in 2024. Treasury portfolios were included within scope of the Hong Kong Monetary Authority's Climate Risk Stress Test ('CRST'), the impacts of which were considered as part of the ICAAP. Internal Liquidity Adequacy Assessment Process ('ILAAP') included assessment of how climate risk may impact the key liquidity risk drivers and identify potential impact of climate risk exposures. In October 2024, HSBC Group published Green Financing Framework, in alignment with the International Capital Market Association Green Bond Principles. This framework promotes transparency, forming part of our sustainability strategy and helping to further our aim of supporting our clients in transitioning to a net zero future. **Pension Risk** Climate risk could result in additional costs within the Group's defined benefit pension plans, due to changes in the pension plans' investment performance or through having to meet evolving regulatory requirements. The Group's global policies on the oversight of pension investments explicitly reflect climate considerations. HSBC Group has provided training on how to consider ESG risk in pension investments. HSBC Group also conducts an annual exercise to estimate the exposure of its largest pension plans (including the Group) to climate risk.

(d) Climate risk

(unaudited)

Embedding the climate risk approach continued

Risk type	Details
Traded Risk	Climate risk may result in trading losses due to increases in market volatility and widening spreads from the macro and microeconomic impacts of transition and physical risk. We have implemented climate risk limits in Group trading mandates to monitor exposure to climate-sensitive sectors and countries across different asset classes in the Markets and Securities Services ('MSS') business. Our market risk policies include specific climate risk control requirements, which ensure that our climate risk limits and utilisations are monitored in the same way as market and traded credit risk exposures. We conduct monthly stress testing to understand the vulnerabilities of our trading portfolio to various climate scenarios, which are refined on an annual basis, with the results reported to global and regional senior management.
Reputational Risk	Reputational impact of climate risk has been managed through its broader reputational risk framework supported by sustainability risk policies and metrics. The sustainability risk policies set out its appetite for financing activities in certain sectors. The thermal coal phase-out and energy policies aim to drive down greenhouse emissions while supporting a just transition.
Regulatory Compliance Risk	Regulatory Compliance is responsible for the oversight and management of climate-related risks that could cause breaches of our regulatory duties to customers and inappropriate market conduct, ensuring fair customer outcomes are achieved. The Group has updated its policies to incorporate considerations for ESG and climate risks, particularly in relation to new and ongoing product management, sales outcomes, and product marketing. To support its key policies, the Group also enhanced the underlying control frameworks and processes. This includes the integration of greenwashing risk and controls considerations in the design of new products and changes to them, as well as in relation to marketing materials. From a product sales perspective, the Group has established key control principles and desired outcomes throughout the sales lifecycle, encompassing the sales journey design, training and competence, supervision, sales quality, and governance. The HSBC Group operate an ESG and climate risk working group tasked with tracking and monitoring the integration of ESG and climate risk stewardship across its operations. This also monitors regulatory and legislative developments related to the ESG and climate agenda. A similar working group is in place for the Group.
Resilience Risk	Resilience risks may potentially crystallise through physical climate risk impacts to the group's buildings supporting service provision, or through physical and/or transition disruption to the group's third party supply chain relationships. The Group has developed metrics to assess how physical risk may impact its critical properties and to monitor progress against its own operations net zero ambitions. The Group's resilience risk policies are subject to continuous improvement to remain relevant to evolving climate risks.
Model Risk	Model risk in ESG context refers to the uncertainties and complexities inherent in the modelling of the financial impact translation of climate related changes and scenarios. Climate risk models are used for climate scenario analysis and risk management among other use cases. Climate risk modelling is at a nascent stage, with challenges - including limitations in data availability, consistency and quality-shared across the financial industry. It is important that limitations in models should be clearly identified, understood and, where possible, mitigated to support effective decision making. HSBC Group has developed model risk procedures that set out the minimum control requirements for identifying, measuring and managing model risk for climate-related models. All the identified climate-related models are subject to HSBC Group model lifecycle controls and policy.

(d) Climate risk

(unaudited)

Challenges

While the Group has continued to develop its climate risk capabilities, its remaining challenges include:

- the diverse range of internal and external data sources and data structures needed for climate related reporting, which introduces data accuracy and reliability risks;
- data limitations on customer assets and supply chains, and methodology gaps, which hinder the Group's ability to assess physical risks accurately;
- industry-wide data gaps on customer emissions and transition plan and methodology gaps, which limit its ability to assess transition risks accurately; and
- limitations in the management of net zero alignment risk due to known and unknown factors, including the limited accuracy and reliability of data, merging methodologies, and the need to develop new tools to better inform decision making.

(e) Resilience risk

(unaudited)

Overview

Resilience risk is the risk of sustained and significant business disruption from execution, delivery, physical security or safety events, causing the inability to provide critical services to our customers, affiliates and counterparties. Resilience risk arises from failures or inadequacies in processes, people, systems or external events.

Resilience risk management

Key developments in 2024

The Enterprise Risk Management sub-function provides robust Risk Steward oversight of the management of risk by the Group businesses, functions and legal entities. This includes effective and timely independent challenge and expert advice. During the year, we carried out a number of initiatives to keep pace with geopolitical, regulatory and technology changes and to strengthen the management of resilience risk:

- We focused on enhancing our understanding of our risk and control environment, by updating our risk taxonomy and control libraries, and refreshing risk and control assessments;
- We continued to monitor markets affected by the Russia-Ukraine and Israel-Hamas wars, as well as other geopolitical events, for any potential impact they may have on our colleagues and operations;
- We provided analysis and easy-to-access risk and control information and metrics to enable management to focus on non-financial risks in their decision-making and appetite setting;
- We further strengthened our non-financial risk governance and senior leadership, and improved our coverage and Risk Steward Oversight for data privacy; and
- We prioritize our efforts on material risks and areas undergoing strategic growth, aligning our location strategy to this need.

Governance and structure

The Enterprise Risk Management target operating model provides a consistent view across resilience risks, strengthening our risk management oversight while operating effectively as part of a simplified non-financial risk structure.

We view resilience risk across seven sub-risk types related to: third party risk; technology and cyber security risk; transaction processing risk; business interruption and incident risk; data risk; change execution risk; and facilities availability, safety and security risk.

Risk appetite and key escalations for resilience risk are reported to the Risk Management Meeting, chaired by the Chief Risk and Compliance Officer, with an escalation path to the Risk Committee.

(e) Resilience risk

(unaudited)

Resilience risk management continued

Operational Resilience

Operational resilience is our ability to anticipate, prevent, adapt, respond to, recover and learn from operational disruption while minimising customer and market impact. Resilience is determined by assessing whether we are able to continue to provide our most important business services within an agreed level. This is achieved via day-to-day oversight, periodic and ongoing assurance, such as deep dive reviews and controls testing, which may result in challenges being raised to the business by Risk Stewards. Further challenge is also raised in the form of risk steward opinion papers to formal governance. We accept that we will not be able to prevent all disruption but we prioritise investment to continually improve the response and recovery strategies for our most important business services.

(f) Regulatory compliance risk

(unaudited)

Overview

Regulatory compliance risk is the risk associated with breaching our duty to clients and other counterparties, inappropriate market conduct (including unauthorised trading) and breaching related financial services regulatory standards. Regulatory compliance risk arises from the failure to observe relevant laws, codes, rules and regulations and can manifest itself in poor market or customer outcomes and lead to fines, penalties and reputational damage to our business.

Regulatory compliance risk management

Key developments in 2024

Regulatory horizon scanning and mapping capabilities continue to evolve with a focus on enhanced connectivity to Risk management systems to support better traceability of regulatory obligations to control performance. We have enhanced our processes, framework, and governance capabilities to improve the controls and oversight of regulatory compliance risks. Work is underway to transition from event driven technology to incorporate Cloud and analytics capability to enhance our oversight abilities in areas such as surveillance.

Governance and structure

The Head of Regulatory Compliance continues to report to the Chief Risk and Compliance Officer. Regulatory Compliance and Financial Crime teams work together and with relevant stakeholders to achieve good conduct outcomes, and provide enterprise-wide support on the compliance risk agenda in close collaboration with colleagues from the Risk and Compliance function.

Key risk management processes

The HSBC Group's Regulatory Compliance capability is responsible for setting global policies, standards and risk appetite to guide the Group's management of regulatory compliance risk. It also devises the required frameworks, support processes and tooling to protect against regulatory compliance risks. The HSBC Group capability provides oversight, review and challenge of the global market, regional and line of business teams to help them identify, assess and mitigate regulatory compliance risks, where required. The HSBC Group's regulatory compliance risk policies are regularly reviewed. HSBC Global policies and procedures require the identification and escalation of any actual or potential regulatory breaches, and relevant events and issues of the Bank are escalated to the RMM and the Risk Committee, as appropriate.

(g) Financial crime risk

(unaudited)

Overview

Financial crime risk is the risk that the Group's products and services will be exploited for criminal activity. This includes fraud, bribery and corruption, tax evasion, sanctions and export control violations, money laundering, terrorist financing and proliferation financing. Financial crime risk arises from day-to-day banking operations involving customers, third parties and employees.

Financial crime risk management

Key developments in 2024

We regularly review the effectiveness of our financial crime risk management framework, which includes continued consideration of the complex and dynamic nature of sanctions compliance and export control risk. We continued to respond to the various financial sanctions and trade restrictions, including methods used to limit sanctions evasion.

We continued to make progress with several key financial crime risk management initiatives, including:

- We deployed our intelligence-led, dynamic risk assessment capability for customer account monitoring in Wealth and Personal Banking ('WPB') and Commercial Banking ('CMB').
- We successfully introduced the required changes to our transaction screening capability to accommodate the global change to payment systems formatting under ISO 20022 requirements.
- We made enhancements in response to the rapidly evolving and complex global payments landscape and refined our digital assets and currencies strategy.

Governance and structure

The structure of the Financial Crime function remained substantively unchanged in 2024, although we continued to review the effectiveness of our governance framework to manage financial crime risk. The Head of Financial Crime and Money Laundering Reporting Officer continues to report to the Chief Risk and Compliance Officer, while the Risk Committee retains oversight of matters relating to fraud, bribery and corruption, tax evasion, sanctions and export control breaches, money laundering, terrorist financing and proliferation financing.

Key risk management processes

We will not tolerate knowingly conducting business with individuals or entities believed to be engaged in criminal activity. We require everybody in the Bank to play their role in maintaining effective systems and controls to prevent and detect financial crime. Where we believe we have identified suspected criminal activity or vulnerabilities in our control framework, we will take appropriate mitigating action.

We manage financial crime risk because it is the right thing to do to protect our customers, shareholders, staff, the communities in which we operate, as well as the integrity of the financial system on which we all rely. We operate in a highly regulated industry in which these same policy goals are codified in law and regulation.

We are committed to complying with the laws and regulations of all the markets in which we operate and applying a consistently high financial crime standard globally.

We continue to assess the effectiveness of our end-to-end financial crime risk management framework and invest in enhancing our operational control capabilities and technology solutions to deter and detect criminal activity. We have simplified our framework and consolidated previously separate, financial crime policies into a single global financial crime policy to drive consistency and provide a more holistic assessment of financial crime risk. We further strengthened our financial crime risk taxonomy and control libraries and our monitoring capabilities through technology deployments. We developed more targeted metrics, and continued to seek to enhance our governance and reporting.

We are committed to working in partnership with the wider industry and the public sector in managing financial crime risk and we participate in numerous public-private partnerships and information-sharing initiatives. In 2024, our focus remained on measures to improve the overall effectiveness of the financial crime framework.

(h) Model risk

(unaudited)

Overview

Model risk is the risk of the potential for adverse consequences from model errors or the inappropriate use of modelled outputs to inform business decisions.

Model risk arises in both financial and non-financial contexts whenever business decision making includes reliance on models.

Key developments in 2024

Updating Model Risk Management Framework to meet the requirements of the Prudential Regulation Authority's ('PRA') Supervisory Statement ('SS') 1/23, where a programme of work is in progress to implement these changes across model landscape.

Completing a full review of Model Tiering across the organisation, assessing the materiality and complexity of all models and assigning a new tier which will drive the level of oversight required at model level.

Introducing a new framework to govern and manage the risks associated with Deterministic Quantitative Methods, these are complex and material calculators which present similar risks as models.

Following feedback from the PRA and HKMA on a number of model submissions for internal ratings-based ('IRB') models, a programme of work is being delivered to address and redevelop a number of the IRB models for wholesale credit.

Completion of independent validation of models being submitted for regulatory approval, including the first tranche of models for the Fundamental Review of the Trading Book.

Working closely with the Businesses and Functions in developing a governance framework to manage the range of risks Artificial Intelligence and Machine Learning techniques can introduce.

Governance

Model oversight forums provide oversight of models used in the Group to oversee model risk management activities based on associated types of models and focus on local delivery and requirements.

Key risk management processes

A variety of modelling approaches, including regression, simulation, sampling, machine learning and judgemental scorecards for a range of business applications are used. These activities include customer selection, product pricing, financial crime transaction monitoring, creditworthiness evaluation and financial reporting.

Model risk management policies and procedures are regularly reviewed, and required the first line of defence to demonstrate comprehensive and effective controls based on a library of model risk controls.

We report on model risk to senior management on a regular basis through the use of the risk map, risk appetite and regular key updates.

The effectiveness of model oversight structure is regularly reviewed to ensure appropriate understanding and ownership of model risk continued to be embedded in the businesses and functions.

(i) Insurance manufacturing operation risk

Overview

(unaudited)

The majority of the risk in the insurance business derives from manufacturing activities and can be categorised as insurance underwriting risk and financial risk. Financial risk includes the risk of not being able to match liabilities arising under insurance contracts with appropriate investments and that the expected sharing of financial performance with policyholders under certain contracts is not possible, exposure of which arises from market risk, credit risk and liquidity risk. Insurance underwriting risk is the risk that, over time, the cost of insurance policies written, including claims and benefits, may exceed the total amount of premiums and investment income received.

Group's insurance business

(unaudited)

We sell insurance products through a range of channels including our branches, direct channels and third-party distributors. The majority of sales are through an integrated bancassurance model that provides insurance products principally for customers with whom we have a banking relationship, although the proportion of sales through other sources such as independent brokers and digital platforms is increasing.

For the insurance products we manufacture, the majority of sales are savings and protection contracts.

We choose to manufacture these insurance products through a Group's subsidiary based on an assessment of operational scale and risk appetite. Manufacturing insurance allows us to retain the risks and rewards associated with writing insurance contracts by keeping part of the underwriting profit and investment income within the Group.

Where we do not have the risk appetite or operational scale to be an effective insurance manufacturer, we engage with a handful of leading external insurance companies in order to provide insurance products to our customers through our banking network and direct channels. These arrangements are generally structured with our exclusive strategic partners and earn the Group a combination of commissions, fees and a share of profits. We distribute insurance products in Hong Kong, China and Macau.

Insurance products are sold predominantly by WPB through our branches and direct channels.

Governance

(unaudited)

Insurance underwriting risks are managed to a defined risk appetite, which is aligned to the Group's risk appetite and risk management framework (including the three lines of defence model). The Insurance Risk Management Meeting oversees the control framework and is accountable to the Group's Risk Management Meeting on risk matters relating to insurance business.

The monitoring of the risks within the insurance operations is carried out by the Insurance Risk teams. Specific risk functions, including wholesale credit & market risk, operational risk, information security risk and compliance, support Insurance Risk teams in their respective areas of expertise.

In addition, our insurance manufacturing subsidiary performs annually an Own Risk and Solvency Assessment ('ORSA') to assess its risk profile, the adequacy of risk management and also its current, and likely future, solvency and liquidity positions according to local regulation.

(i) Insurance manufacturing operation risk

Measurement

(audited)

The following table shows the composition of assets and liabilities by type of contract:

Balance sheet of insurance manufacturing subsidiary by type of contract[5]

(audited)

	Life direct participating contracts[1]	Life other[2]	Other contracts[3]	Shareholders' assets and liabilities	Total
At 31 December 2024					
Financial assets:					
– financial assets mandatorily measured at fair value through profit or loss	155,400	8,680	43	100	164,223
– derivative	152	8	–	1	161
– financial investments	–	–	186	8,698	8,884
– other financial assets[4]	9,576	535	40	1,071	11,222
Total financial assets	165,128	9,223	269	9,870	184,490
Insurance contract assets	–	3	–	–	3
Reinsurance contract assets	–	12,867	–	–	12,867
Other assets and investment properties	5,843	318	3	3,966	10,130
Total assets	170,971	22,411	272	13,836	207,490
Liabilities under investment contracts designated at fair value	–	–	245	–	245
Insurance contract liabilities	178,475	9,970	–	–	188,445
Reinsurance contract liabilities	–	1,002	–	–	1,002
Deferred tax	–	–	–	10	10
Derivative financial instruments	151	9	–	–	160
Other liabilities	3,382	187	1	2,914	6,484
Total liabilities	182,008	11,168	246	2,924	196,346
Total equity	–	–	–	11,144	11,144
Total liabilities and equity	182,008	11,168	246	14,068	207,490

(i) Insurance manufacturing operation risk

Measurement continued

(audited)

Balance sheet of insurance manufacturing subsidiary by type of contract[5] continued

(audited)

	Life direct participating contracts[1]	Life other[2]	Other contracts[3]	Shareholders' assets and liabilities	Total
At 31 December 2023					
Financial assets:					
– financial assets mandatorily measured at fair value through profit or loss	148,205	8,377	47	–	156,629
– derivative	46	3	–	–	49
– financial investments	–	–	191	8,150	8,341
– other financial assets[4]	4,230	239	45	986	5,500
Total financial assets	152,481	8,619	283	9,136	170,519
Insurance contract assets	–	10	–	–	10
Reinsurance contract assets	–	5,378	–	–	5,378
Other assets and investment properties	6,168	338	2	2,923	9,431
Total assets	158,649	14,345	285	12,059	185,338
Liabilities under investment contracts designated at fair value	–	–	264	–	264
Insurance contract liabilities	158,595	8,614	–	–	167,209
Reinsurance contract liabilities	–	1,111	–	–	1,111
Deferred tax	–	–	–	10	10
Derivative financial instruments	145	8	–	2	155
Other liabilities	3,393	191	11	2,102	5,697
Total liabilities	162,133	9,924	275	2,114	174,446
Total equity	–	–	–	10,892	10,892
Total liabilities and equity	162,133	9,924	275	13,006	185,338

1 Life direct participating contracts are measured under the variable fee approach measurement model.

2 Life other contracts are measured under the general measurement model. Life other contracts mainly include protection type contracts as well as reinsurance contracts. The reinsurance contracts primarily provide diversification benefits over the life direct participating contracts.

3 Other contracts includes investment contracts for which the Group does not bear significant insurance risk.

4 Comprise mainly loans and advances to banks, cash and inter-company balances with other non-insurance legal entities.

5 Balance sheet of insurance manufacturing operations is shown before elimination of inter-company transactions with the Bank's non-insurance operations.

(i) Insurance manufacturing operation risk

Stress and Scenario Testing

(audited)

Stress testing forms a key part of the risk management framework for our insurance business. The Group's insurance manufacturing subsidiary participates in regulatory stress tests, as well as internally developed stress and scenario tests. The results of these stress tests and the adequacy of management action plans to mitigate these risks are considered in our insurance manufacturing subsidiary's regulatory ORSA as required under HKRBC.

Key Risk Types

The key risks for the insurance operations are market risks (in particular interest rate and equity), and credit risks, followed by insurance underwriting risk and operational risks. Liquidity risk, while more significant for the banking business, is minor for our insurance manufacturing subsidiary.

Market risk (insurance)

(audited)

Market risk is the risk of changes in market factors affecting the Group's manufacturing subsidiary's capital or profit. Market factors include interest rates, equity and growth assets, spread risk and foreign exchange rates.

Exposure of our insurance business varies depending on the type of contract issued. Most significant life insurance products of our insurance business are contracts with discretionary participating features ('DPF') issued in Hong Kong. These products typically include some form of capital guarantee or guaranteed return, on the sums invested by the policyholders, to which bonuses are added if allowed by the overall performance of the funds. These funds are primarily invested in bonds with a proportion allocated to other asset classes, to provide customers with the potential for enhanced returns. Contracts with DPF are further classified into Life direct participating contracts and Life other contracts under HKFRS 17.

DPF products expose our insurance business to the risk of variation in asset returns, which will impact our participation in the investment performance. In addition, in some scenarios the asset returns can become insufficient to cover the policyholders' financial guarantees, in which case the shortfall has to be met by the Group's insurance manufacturing subsidiary. Allowances are made against the cost of such guarantees, calculated by stochastic modelling.

The cost of such guarantees are generally not material as it is absorbed by the CSM.

For unit-linked contracts, market risk is substantially borne by the policyholders, but some market risk exposure typically remains as fees earned are related to the market value of the linked assets.

Our insurance manufacturing subsidiary has market risk mandates which specify the investment instruments in which it is permitted to invest and the maximum quantum of market risk which they may retain. It manages market risk by using, among others, some or all of the techniques listed below, depending on the nature of the contracts written:

- for products with DPF, adjusting bonus rates to manage the liabilities to policyholders and the effect is that a significant portion of the market risk is borne by the policyholders;
- asset and liability matching where asset portfolios are structured to support projected liability cash flows. Our insurance manufacturing subsidiary manages its assets using an approach that considers asset quality, diversification, cash flow matching, liquidity, volatility and target investment return. It is not always possible to match asset and liability durations due to uncertainty over the receipt of all future premiums and the timing of claims; and the forecast payment dates of liabilities may exceed the duration of the longest dated investments available. Our insurance manufacturing subsidiary uses models to assess the effect of a range of future scenarios on the values of financial assets and associated liabilities and the ALCO employs the outcomes in determining how to best structure asset holdings to support liabilities;
- using derivatives and other financial instruments to protect against adverse market movements; and
- designing new products to mitigate market risk, such as changing the investment return sharing portion between policyholders and the shareholder.

(i) Insurance manufacturing operation risk

Key Risk Types continued

Market risk (insurance) continued

(audited)

Sensitivity of the Group's insurance manufacturing subsidiary to market risk factors

	2024			2023		
	Effect on CSM	Effect on profit after tax	Effect on total equity	Effect on CSM	Effect on profit after tax	Effect on total equity
+100 basis point parallel shift in yield curves[1]	136	39	39	112	(3)	(3)
–100 basis point parallel shift in yield curves[1]	(637)	(74)	(74)	(697)	(10)	(10)
+100 basis point shift in credit spreads[1]	(1,153)	(236)	(236)	(1,284)	(285)	(285)
–100 basis point shift in credit spreads[1]	1,187	316	316	1,231	365	365
10% increase in growth assets[2]	713	94	94	603	93	93
10% decrease in growth assets[2]	(785)	(101)	(101)	(632)	(96)	(96)
10% appreciation in US dollar exchange rate against local functional currency[3]	33	(1)	(1)	18	–	–
10% depreciation in US dollar exchange rate against local functional currency[3]	(33)	1	1	(18)	–	–

1 For the sensitivity to parallel shift in yield curves and shift in credit spreads, an absolute +/- 100 basis points of the discount rate is used.

2 For the sensitivity to growth assets, a relative +/- 10% (i.e. multiply the assumption by 110% or 90%) is used.

3 For the sensitivity to USD exchange rate, the extent of change is limited by the impact of the HKD to USD peg.

Growth assets primarily comprise equities securities, collective investment schemes, derivatives (other than exchange rate contracts) and investment properties. Variability in growth asset fair value constitutes a market risk to the Group's insurance manufacturing subsidiary.

The method used for deriving sensitivity information and significant market risk factors remain unchanged except for updates made to the FX risk methodology which now limits the impacts to within more recent historical ranges. 2023 comparative sensitivities have been updated to reflect this change.

The relationship between the profit and total equity and the risk factors is non-linear and non-symmetrical, therefore the results disclosed should not be extrapolated to measure sensitivities to different levels of stress. The sensitivities reflect the established risk sharing mechanism with policyholders for participating products, and are stated before allowance for management actions which may mitigate the effect of changes in the market environment. The sensitivities presented do not allow for adverse changes in policyholders' behaviour that may arise in response to changes in market rates.

Credit risk (insurance)

(audited)

Credit risk is the risk of financial loss if a customer or counterparty fails to meet their obligation under a contract. It arises in two main areas for our insurance manufacturing subsidiary:

- risk associated with credit spread volatility and default by debt security counterparties after investing premiums to generate a return for policyholders and shareholders; and
- risk of default by reinsurance counterparties and non-reimbursement for claims made after ceding insurance risk.

(i) Insurance manufacturing operation risk

Key Risk Types continued

Credit risk (insurance) continued

(audited)

The amounts outstanding at the balance sheet date in respect of these items are mainly reflected as 'Financial investments' and 'Reinsurance contract assets' in the table of 'Balance sheet of insurance manufacturing subsidiary by type of contract' under 'Insurance manufacturing operation risk' section.

Our insurance manufacturing subsidiary has credit risk mandates and limits within which it is permitted to operate, which consider the credit risk exposure quality and performance of its investment portfolios. Assessment of the creditworthiness of issuers and counterparties is based primarily upon internationally recognised credit ratings and other publicly available information. Stress testing is performed on the investment credit exposures using credit spread sensitivities and default probabilities.

Our insurance manufacturing subsidiary uses tools to manage and monitor credit risk. These include a credit report which contains a watch-list of investments with current credit concerns to identify investments which may be at risk of future impairment or where high concentrations to counterparties are present in the investment portfolio. Sensitivities to credit spread risk are assessed and monitored regularly.

Impairment for debt securities measured at amortised cost and FVOCI is calculated in three stages and financial assets are allocated into one of the three stages where the transfer mechanism depends on whether there is a significant increase in credit risk between its first recognition and the relevant reporting period. After the allocation, the measurement of ECL, which is the product of PD, LGD and EAD, will reflect the change in risk of default occurring over the remaining life of the instruments. Note 2(j) of the financial statements set out the details on related accounting policy.

Credit risk on assets supporting unit-linked liabilities is predominantly borne by the policyholders; therefore exposure is primarily related to liabilities under non-linked insurance and investment contracts and shareholders' funds.

The credit quality of the reinsurance contract assets is assessed as 'strong' (as defined on 'Credit quality classification' under 'Credit risk' section), with Nil exposure being past due or impaired (2023: Nil). The credit quality of financial assets is included under the Credit Risk section. The risk associated with credit spread volatility is to a large extent migrated by holding debt securities to maturity, and sharing a degree of credit spread experience with policyholders.

Liquidity risk (insurance)

(audited)

Liquidity risk is the risk that the Group's insurance manufacturing subsidiary, though solvent, either does not have sufficient financial resources available to meet its obligations when they fall due, or can secure them only at excessive cost. Liquidity risk may be able to be shared with policyholders for products with DPF.

Liquidity risk is managed by cashflow matching and maintaining sufficient cash resources; investing in high-credit-quality investments with deep and liquid markets, monitoring investment concentrations and restricting them where appropriate and establishing committed contingency borrowing facilities and conducting stress testing to understand the impact on liquidity in the event of a mass lapse.

Our insurance manufacturing subsidiary completes quarterly liquidity risk reports and an annual review of the liquidity risks to which it is exposed.

(i) Insurance manufacturing operation risk

Key Risk Types continued

Liquidity risk (insurance) continued

(audited)

The amounts of insurance contract liabilities that are payable on demand are set out by the product grouping below:

Amounts Payable on Demand

(audited)

	2024		2023	
	Amounts Payable on Demand	Carrying Amount for these Contracts	Amounts Payable on Demand	Carrying Amount for these Contracts
Life direct participating contracts	168,930	178,518	147,593	158,655
Life other contracts	7,887	9,963	6,384	8,609
At 31 December	176,817	188,481	153,977	167,264

Insurance underwriting risk

(audited)

Insurance underwriting risk is the risk of loss through adverse experience, in either timing or amount, of insurance underwriting parameters (non-economic assumptions). These parameters include mortality, morbidity, longevity, lapses and expense rates. The principal risk our insurance manufacturing subsidiary faces is that, over time, the cost of the contract, including claims and benefits may exceed the total amount of premiums and investment income received.

The Group's insurance manufacturing subsidiary primarily uses the following framework and processes to manage and mitigate insurance underwriting risk:

- a formal approval process for launching new products or making changes to products;
- a product pricing and profitability framework, which requires initial and ongoing assessment of the adequacy of premiums charged on new insurance contracts to meet the risks associated with them;
- a framework for customer underwriting;
- reinsurance which cedes risks to third-party to keep risks within risk appetite, reduce volatility and improve capital efficiency; and
- oversight of the methodology and assumptions that underpin HKFRS 17 reporting by our insurance manufacturing subsidiary's Actuarial Review Committee.

(i) Insurance manufacturing operation risk

Key Risk Types continued

Insurance underwriting risk continued

(audited)

The following table shows the sensitivity of profit and total equity to reasonably possible changes in non-economic assumptions for our insurance manufacturing subsidiary. These sensitivities are prepared in accordance with current HKFRSs.

Sensitivity of the Group's insurance manufacturing subsidiaries to insurance underwriting risk factors

(audited)

	Effect on CSM (net)[3]	Effect on profit after tax (gross)[1]	Effect on profit after tax (net)[2]	Effect on total equity (gross)[1]	Effect on total equity (net)[2]
At 31 December 2024					
5% increase in mortality and/or morbidity rates[4]	**(77)**	**(9)**	**(16)**	**(9)**	**(16)**
5% decrease in mortality and/or morbidity rates[4]	**76**	**9**	**16**	**9**	**16**
10% increase in lapse rates	**(270)**	**(27)**	**(34)**	**(27)**	**(34)**
10% decrease in lapse rates	**292**	**28**	**35**	**28**	**35**
10% increase in expense rates	**(20)**	**(1)**	**(1)**	**(1)**	**(1)**
10% decrease in expense rates	**24**	**1**	**1**	**1**	**1**
At 31 December 2023					
5% increase in mortality and/or morbidity rates[4]	(72)	(13)	(23)	(13)	(23)
5% decrease in mortality and/or morbidity rates[4]	77	13	23	13	23
10% increase in lapse rates	(195)	(30)	(40)	(30)	(40)
10% decrease in lapse rates	206	31	41	31	41
10% increase in expense rates	(21)	–	–	–	–
10% decrease in expense rates	22	1	1	1	1

1 The gross sensitivities impacts are provided before considering the impacts of reinsurance contracts held as risk mitigation.

2 The net sensitivities impacts are provided after considering the impacts of reinsurance contracts held as risk mitigation.

3 The above CSM sensitivities have been presented on a net basis to reflect the re-insurance arrangements entered into by the insurance manufacturing subsidiary as part of its operational business model. The comparative figures have been re-presented accordingly.

4 During 2024, we have revised the sensitivity to mortality and morbidity rates from 10% to 5% to align with reasonable foreseeable changes, and the comparatives have been restated accordingly.

Mortality and morbidity risk is typically associated with life insurance contracts. The effect on profit of an increase in mortality or morbidity depends on the type of business being written.

Sensitivity to lapse rates depends on the type of contracts being written. An increase in lapse rates typically has a negative effect on CSM (and therefore expected future profits) due to the loss of future income on the lapsed policies. However, some contract lapses have a positive effect on profit due to the existence of policy surrender charges.

Expense rate risk is the exposure to a change in the allocated cost of administering insurance contracts. To the extent that increased expenses cannot be passed on to policyholders, an increase in expense rates will have a negative effect on our profits.