Risk Management

(This section forms an integral part of OCBC's audited financial statements)

DEVELOPMENTS IN 2008

The unfolding global financial crisis, unprecedented in scale and impact, led to challenging business conditions and market uncertainty that underscored much of 2008. Against this environment, OCBC Group benefited from ongoing investments in risk management infrastructure that enabled us to actively manage our risks and businesses amid the financial turmoil. As conditions deteriorated, we took quick decisive actions to ensure adequate liquidity was maintained at all times and to closely manage our counterparty risks.

In the past year, we continued to strengthen and refine our risk management processes to create an integrated and holistic view of risks. Initiatives included strengthening our regular and comprehensive assessments of emerging risks and trends, identifying risk concentrations of concern, and instituting appropriate early mitigation strategies. An Internal Capital Adequacy Assessment Process (ICAAP) was also established during the year. This enabled the Group to assess various scenarios to better understand how risks interact, and incorporate the results of stress tests into our capital adequacy assessment.

OCBC Group has had little direct impact from the fallout of the subprime crisis. We have had to set aside provisions for investments in collateralised debt obligations in 2007 and 2008, which had been undertaken to diversify our revenue sources and reduce our portfolio concentrations. This experience has reinforced to us the importance of staying true to what we know best as a commercial bank. By focusing on our core competencies, coupled with better-equipped risk systems, OCBC Group will be able to sustain our competitiveness and meet our long-term commitment to our customers and the communities in which we serve.

RISK MANAGEMENT IN OCBC GROUP

At OCBC Group, we believe that sound risk management is essential to ensuring success in the provision of financial services. Our philosophy is to ensure that risks undertaken are commensurate with returns and are within our established risk appetite. To this end, we regularly refine our risk management approaches to enable us to identify, measure, control, re-position, manage, and report risks appropriately.

Key elements of OCBC Group's enterprise-wide risk management strategy are:

- **Risk appetite** – The Board of Directors approves the Group's risk appetite, and risks are managed to remain within the risk appetite. Risk-taking decisions must be consistent with strategic business goals and returns should compensate for the risk taken.
- **Risk frameworks** – The Group's risk management frameworks for all risk types are documented, comprehensive, and consistent.
- **Holistic risk management** – Risks are managed holistically, with a view to understand the potential interactions among risk types.
- **Qualitative and quantitative evaluations** – Risks are evaluated both qualitatively and with appropriate quantitative analyses and robust stress testing. Risk models are regularly reviewed to ensure they are appropriate and effective.

Key to the Group's effective risk management is the tone from the top and direction provided by the Board of Directors and senior management, emphasising well-considered risk-taking and proactive risk management. This is reinforced with appropriate risk management staff, ongoing investments in risk systems, and regular review and enhancement of risk management policies and procedures for consistent application and a strong internal control environment throughout the Group. Accountability for managing risks is shared among customer-facing and product business units, dedicated functional risk management units, as well as other support units such as Operations and Technology, and Group Audit. Rigorous stress testing and scenario analyses identify possible events or market conditions that could adversely affect the Group. These results are taken into account, as applicable, in the Group's capital adequacy assessment.

The discussion in this risk management chapter covers the risk management practices, policies, and frameworks of OCBC Group, excluding Great Eastern Holdings (GEH) and Bank OCBC NISP. With the exception of these two entities, other banking subsidiaries are required to implement risk management policies that conform to the Group's standards, with approving authorities and limits as determined by the Head Office.

GEH and Bank OCBC NISP are listed on Singapore Exchange and Indonesia Stock Exchange, respectively. As listed companies, GEH and Bank OCBC NISP publish their own annual reports, which contain information on their risk management frameworks and practices (refer to Note 39 in the Group's Financial Statements for information on GEH's risk management). The Group collaborates with GEH and Bank OCBC NISP on aligning their risk management infrastructure through knowledge transfer and training assistance.

RISK GOVERNANCE AND ORGANISATION

The Board of Directors establishes the Group's risk appetite and risk principles. The Board Risk Committee is the principal Board committee that oversees the Group's risk management. It reviews and approves the Group's overall risk management philosophy, risk management frameworks, major risk policies, and risk models. The Board Risk Committee also oversees the establishment and operation of the risk management systems, and their effectiveness. The Group's various risk exposures, risk profiles, risk concentrations, and trends are regularly reported to the Board of Directors and senior management for discussion and appropriate action.

The Board Risk Committee is supported by Group Risk Management Division, which has functional responsibility on a day-to-day basis for providing independent risk control and managing credit, market, operational, liquidity, and other key risks. Within the division, risk officers are dedicated to establishing Group-wide policies, risk measurement and methodology, as well as monitoring the Group's risk profiles and portfolio concentrations. Credit officers are also involved in transaction approvals. Approval limits are based on the relevant experience of the officers and portfolio coverage. Representatives from the division also provide expertise during the design and approval process for new products offered by the Group. This ensures that new or emerging risks from new products are adequately identified, measured, and managed within existing risk systems and processes.

Various risk management committees have been established for active senior management oversight, understanding, and dialogue

Risk Management

(This section forms an integral part of OCBC's audited financial statements)

on policies, profiles, and activities pertaining to the relevant risk types. These include the Credit Risk Management Committee, the Market Risk Management Committee, the Asset and Liability Management Committee, and the Operational Risk Management and Information Security Committee. Both risk-taking and risk control units are represented on these committees, emphasising shared risk management responsibilities.

Group Audit conducts regular independent reviews of loan portfolios and business processes to ensure compliance with the Group's risk management frameworks, policies, processes, and methodologies.

BASEL II

The Group has implemented Monetary Authority of Singapore (MAS) Notice 637 on Risk Based Capital Adequacy Requirements for banks incorporated in Singapore with effect from 1 January 2008. MAS Notice 637 adopts the Basel Committee on Banking Supervision's proposal on "International Convergence of Capital Measurement and Capital Standards," commonly referred to as Basel II. This risk-based capital adequacy framework requires banks to enhance their risk management practices and establishes minimum capital requirements to support credit, market, and operational risks. With this new framework, there is a stronger correlation between capital requirements and the level of risks undertaken.

MAS Notice 637 specifies the regulatory guidelines on the approaches, methodologies, and processes that banks in Singapore should adopt under the new risk-based capital adequacy framework. The framework comprises three pillars: Pillar 1 prescribes the minimum capital requirements to support a bank's credit, market, and operational risks; Pillar 2 requires banks to have a holistic internal capital adequacy assessment process and requires supervisors to review the adequacy of the process and the sufficiency of the Bank's capital for all material risks; and Pillar 3 prescribes minimum disclosures on risk profile and capital adequacy to facilitate market discipline.

For Pillar 1, the Group has adopted the foundation internal ratings-based (F-IRB) approach to calculate credit risk-weighted assets for major non-retail portfolios, and the advanced internal ratings-based (A-IRB) approach for major retail portfolios. Other credit portfolios are on the standardised approach (SA) and will be progressively migrated to the internal ratings-based approaches. The regulatory capital to be set aside for credit risk-weighted assets depends on various factors, including internal risk grades, product type, counterparty type, and maturity.

For market risk and operational risk, the Group has adopted the standardised approaches. Market risk-weighted assets are marked to market and are risk weighted according to the instrument category, maturity period, credit quality grade, and other factors. Operational risk-weighted assets are derived by applying specified beta factors or percentages to the annual gross income for the prescribed business lines in accordance with regulatory guidelines. Initiatives are in place to move toward Internal Model Approach for market risk and Advanced Measurement Approach for operational risk.

To meet Pillar 2 requirements, the Group has established an Internal Capital Adequacy Assessment Process (ICAAP). The process will be refined progressively, taking into account changes in the Group's risk appetite, business strategies, stress test results, and market developments.

As part of enhanced public disclosures on risk profile and capital adequacy under Pillar 3, the Group has made additional disclosures in the 2008 annual report. Please refer to the OCBC Group Basel II Pillar 3 Market Disclosure section in the annual report for more information.

CREDIT RISK MANAGEMENT

Credit risk arises from the risk of loss of principal or income on the failure of an obligor or counterparty to meet their contractual obligations. As our primary business is commercial banking, the Group is exposed to credit risks from loans to retail, corporate, and institutional customers. Trading and investment banking activities, such as trading of derivatives, debt securities, foreign exchange, commodities, securities underwriting, and settlement of transactions, also expose the Group to counterparty credit risks.

The Group seeks to take only credit risks that meet our underwriting standards. We seek to ensure that risks are commensurate with potential returns that enhance shareholder value.

Credit Risk Management Oversight and Organisation

The Credit Risk Management Committee (CRMC) is the senior management committee that supports the CEO and the Board Risk Committee in credit risk management oversight. CRMC reviews the Group's credit risk philosophy, framework, and policies; aligns credit risk management with business strategy and planning; recommends credit approval authority limits; reviews the credit profile of material portfolios; and recommends actions where necessary to ensure that credit risks remain within established risk tolerances.

Within Group Risk Management Division, Credit Risk Management (CRM) departments have functional responsibility for credit risk management, including formulating and ensuring compliance with Group-wide risk policies, guidelines, and procedures. Other Group Risk departments are responsible for risk portfolio monitoring, risk measurement methodology, risk reporting, risk control systems, and remedial loan management. Group Risk units also conduct regular credit stress tests to assess the credit portfolio's vulnerability to adverse credit risk events.

Regular risk reporting is made to the Board of Directors, Board Risk Committee, and CRMC in a timely, objective, and transparent manner. These reports include various credit risk aspects such as portfolio quality, credit migration, expected losses, and concentration risk exposures by business portfolio and geography. Such reporting allows senior management to identify adverse credit trends, take corrective action promptly, and ensure appropriate risk-adjusted decision making.

Credit Risk Management Approach

Our credit risk management framework includes comprehensive credit risk policies for approval and management of credit risk, as well as methodologies and models to quantify these risks consistently. This is complemented by expert judgement by officers, regular credit reviews, and independent internal audit review. Early

Risk Management

(This section forms an integral part of OCBC's audited financial statements)

problem identification is emphasised. During 2008, credit underwriting criteria relating to retail and corporate lending were updated to reflect the changing economic conditions in our key markets. In addition, we were very selective in purchasing international debt securities. Portfolio reviews and stress tests were increased in order to identify vulnerabilities to the deteriorating credit conditions.

Lending to Consumers and Small Businesses

For the consumer and small business sectors, credit risks are managed on a portfolio basis. Such products include mortgages, credit cards, auto loans, commercial property loans, and business term loans. Loans are underwritten under product programmes that clearly define the target market, underwriting criteria, terms of lending, maximum exposure, credit origination guidelines, and verification processes to prevent fraud. The portfolios are closely monitored using MIS analytics. Scoring models are used in the credit decision process for some products to enable objective risk evaluations and consistent decisions, cost efficient processing, and behavioural score monitoring of expected portfolio performance.

Lending to Corporate and Institutional Customers

Loans to corporate and institutional customers are individually underwritten and risk-rated. Credit officers identify and assess the credit risks of large corporate or institutional customers, or customer groups, taking into consideration their financial and business profiles, industry and economic factors, collateral, or other credit support. Credit extensions have to meet pre-defined target market and risk acceptance criteria.

To ensure objectivity in credit extensions, co-grantor approvals – or joint approvals – are required from both the business unit as well as credit controllers from the credit risk function.

Credit Risk from Investment or Trading Activities

In the course of its trading or investment banking activities, the Group is exposed to credit risks from trading, derivative and debt securities activities, as well as counterparty exposure. Counterparty credit risk is the risk of loss from a counterparty defaulting on its contractual obligations to the Group.

The Group has limited exposure to asset-backed securities and collateralised debt obligations. The Group also participates in securitisations, where it may have the role of arranger, underwriter, or investor to support securitisation of customer assets.

Internal Credit Rating Models

Internal credit rating models are an integral part of OCBC Group's credit risk management, decision-making process, and regulatory capital calculations. These internal rating models and the parameters – probability of default (PD), loss given default (LGD), and exposure at default (EAD) – are used in limit setting, credit approval, monitoring, reporting, and remedial management.

An internal ratings framework has been established to govern the development and validation of rating models and the application of these models. Approval for the models and annual validation tests rests with CRMC or Board Risk Committee, depending on the materiality of the portfolios. All models are subject to independent validation before implementation to ensure that all aspects of the model development process have been satisfied. The models are developed with active participation by credit experts from risk control and business units. In addition, they are subject to annual review or more frequent monitoring and independent validation to ensure that they are performing as expected, and that the assumptions used in model development remain appropriate. All rating models are also assessed against regulatory requirements to ensure that they are fit to be used for regulatory purposes.

The Group's internal risk grades are not explicitly mapped to external credit agency ratings. Nevertheless, our internal risk grades may correlate to external ratings in terms of the probability of default ranges as factors used to rate obligors would be similar; an obligor rated poorly by an external rating agency is likely to have a weaker internal risk rating.

A-IRB for Major Retail Portfolios

For regulatory capital requirements, the Group has adopted the advanced internal ratings-based (A-IRB) approach for major retail portfolios, including residential mortgages, credit cards, and auto loans. Internal rating models, developed from internal data, are used to estimate PD, LGD, and EAD parameters for each of these portfolios. Application and behaviour scorecards are used as key inputs for several retail PD models. Product, collateral, and geographical characteristics are major factors used in the LGD and EAD models.

F-IRB for Major Non-Retail Portfolios

The Group's major non-retail portfolios are on the foundation internal ratings-based (F-IRB) approach for regulatory capital requirements. Under this approach, internal models are used to estimate the PD for each obligor, while LGD and EAD parameters are prescribed by MAS. These PD models are statistically based or expert judgement models that make use of quantitative and qualitative factors to assess an obligor's repayment capacity and are calibrated to expected long-term average one-year default rate over an economic cycle. Expert judgement models are typically used for portfolios where there are a low number of internal default observations. These models are developed with credit experts who have in-depth experience with the specific portfolio being modelled. The models also comply with the regulatory criteria for parameterisation. For major specialised lending portfolios, risk grades derived from internal models are mapped to the five supervisory slotting categories as prescribed in MAS Notice 637. The risk weights prescribed for these slotting categories are used to determine the regulatory capital requirements for such exposures.

IRB Approach for Securitisation Exposures

The credit risk weighted assets for securitisation exposures are computed using the ratings based method for such exposures as prescribed by MAS Notice 637.

Standardised Approach for Other Portfolios

Other credit portfolios, such as small business lending, commercial property loans, and exposures to sovereigns are under the standardised approach. Under this approach, regulatory prescribed risk weights based on asset class and external ratings from approved credit rating agencies, where available, are used to determine the

Risk Management

(This section forms an integral part of OCBC's audited financial statements)

risk weighted assets and regulatory capital. Approved external rating agencies include Standard & Poor's, Moody's, and Fitch.

Credit Risk Control

Credit Risk Mitigation

To mitigate risk on its credit portfolios, the Group accepts collateral as security, subject to the Group's policies that govern the eligibility of collateral used for credit risk mitigation.

The key types of collateral taken by the Group are:

- Cash and marketable securities
- Residential and commercial real estate
- Vessels, aircraft, and automobiles
- Other tangible business assets, such as inventory and equipment.

The value of collateral is prudently assessed on a regular basis. Valuations are performed by independent appraisers approved by the Group. Discounts are applied to the market value of collateral, reflecting the quality, liquidity, volatility, and collateral type. Loan-to-value ratio is a key factor taken into consideration in the credit granting decision.

OCBC Group also accepts guarantees from individuals, corporates, and institutions to mitigate credit risk, subject to internal guidelines on eligibility.

Managing Credit Risk Concentrations

Concentration limits

Credit risk concentrations exist in lending to single customer groups, borrowers engaged in similar activities, or diverse groups of borrowers that could be affected by similar economic or other factors. To manage these concentrations, exposure limits are established for single borrowing groups, industry segments, countries, and cross-border transfer risks. Limits are aligned with the Group's business strategy and resources, and take into account the credit quality of the borrower, available collateral, regulatory requirements, and country risk ratings. Limits are typically set in relation to the Group's capital.

While we are steadily diversifying our exposure, the bulk of credit risk concentrations continue to be in our traditional home markets of Singapore and Malaysia, where we have exposures to many sectors of the economy. In terms of industries, we have a significant exposure to the real estate market in Singapore. This is supported by dedicated specialist teams in origination as well as credit risk management. Particular attention is paid to borrower and collateral quality, project feasibility, and emerging market conditions. Regular stress tests are performed on the portfolio. The Bank is in compliance with Section 35 of the Banking Act, which limits its exposure to real estate in Singapore to not more than 35% of its total eligible loan assets.

Counterparty limits

Credit limits are also established to manage trading counterparty and issuer risks. Derivative contracts are transacted under master agreements, such as those from International Swaps and Derivatives Association (ISDA), which allow for close out netting in the event of a default by a counterparty. The Group also establishes settlement and pre-settlement limits for all counterparties arising from the clearing or settlement of any trading or payment clearing activities.

For derivative contracts, the total credit exposure of the contract is the mark-to-market value plus the estimate of the potential credit exposure over the remaining term of the contract. The Group calculates such exposures and uses statistical modelling tools to estimate the potential worst-case scenario.

To mitigate counterparty risk, financial collateral may be taken to partially or fully cover mark-to-market exposures on outstanding positions. A haircut is normally applied on the collateral to cover potential adverse market volatility and currency risk. The collateral agreement typically includes a minimum threshold amount where additional collateral is to be posted by either party if the mark-to-market exposures exceed the agreed threshold amount.

Some netting and collateral agreements may contain rating triggers, although the thresholds in the majority of our agreements are identical in the event of a one-notch rating downgrade. Given the Group's investment grade rating, there is minimal increase in collateral required to be provided to our counterparties if there is a one-notch downgrade of our credit rating.

Remedial Management

Loans are categorised as "Pass" or "Special Mention," while non-performing loans (NPLs) are categorised as "Substandard," "Doubtful," or "Loss" in accordance with MAS Notice 612. In addition, internal loan policies are in place to promote early problem recognition.

Loans are restructured when borrowers face financial difficulties in meeting the original contractual terms of the credit facility, and where the borrowers have viable longer-term business prospects. During loan restructuring, credit facility conditions are modified upon mutual agreement between the Group and the borrower.

OCBC Group has established specialist and centralised units to manage problem exposures to ensure timely NPL reduction and maximise loan recoveries. Timely and risk-based approaches are deployed to optimise collection and asset recovery returns, including monitoring set indicators like delinquency buckets, adverse status, and behavioural score trigger points for consumer NPLs. The Group uses a suite of collection information systems to constantly fine-tune and optimise its objectives of recovery, effectiveness, and improving returns.

Impairment Allowances for Loans

The Group maintains allowances for loans that are sufficient to absorb credit losses inherent in its loan portfolio. Total loan loss reserves comprise specific allowances against each NPL and a portfolio allowance for all loans on books to cover any losses that are not yet evident. The Group's policy for loan allowances is guided by Financial Reporting Standard 39 (FRS 39), as modified by MAS Notice 612.

Specific allowance is established when the present value of future recoverable cash flows of the impaired loan is lower than the carrying value of the loan. Assessment for impairment is conducted on a loan-by-loan basis. The exceptions are homogenous loans (such as housing loans, consumer loans, and credit card receivables) below a certain materiality threshold, where such loans may be

Risk Management

(This section forms an integral part of OCBC's audited financial statements)

pooled together according to their risk characteristics and collectively assessed according to the degree of impairment, taking into account the historical loss experience on such loans.

Portfolio allowances are set aside based on management's credit experiences and judgement for estimated inherent losses that may exist but have not been identified to any specific financial asset. Credit experiences are based on historical loss rates that take into account geographic and industry factors. A minimum 1% portfolio allowance is set aside under the transitional arrangement in MAS Notice 612.

Write-Offs

Loans are written off against impairment allowances when recovery action has been instituted and the loss can be reasonably determined.

Ceasing of Interest Accrual on Loans

When a loan is classified "Substandard," "Doubtful," or "Loss," interest income ceases to be recognised in the income statement on an accrual basis. However, this non-accrual of interest does not preclude the Group's entitlement to the interest income as it merely reflects the uncertainty in the collectability of such interest income.

Collateral Held Against NPLs

The major type of collateral for the Group's NPLs is real estate in Singapore. The realisable value of the real estate collateral is used to determine the adequacy of the collateral coverage. Proceeds from the sale of collateral pledged for a particular loan cannot be applied to other classified loans unless the accounts are related and cross collateralisation of the facilities is provided for contractually.

MARKET RISK MANAGEMENT

Market risk is the risk of loss of income or market value due to fluctuations in market factors such as interest rates, foreign exchange rates, equity and commodity prices, or changes in volatility or correlations of such factors. OCBC Group is exposed to market risks from its trading and client servicing activities.

OCBC Group's market risk management strategy and market risk limits are established within the Group's risk appetite and business strategies, taking into account the macroeconomic and market conditions. Market risk limits are subject to regular review.

Market Risk Management Oversight and Organisation

The Market Risk Management Committee (MRMC) is the senior management committee that supports the Board Risk Committee and the CEO in market risk oversight. MRMC establishes market risk management objectives, framework, and policies governing prudent market risk taking, which are backed by risk methodologies, measurement systems, and internal controls.

MRMC is supported at the working level by the Market Risk Management Department (MRMD) of Group Risk Management Division. MRMD is the independent risk control unit responsible for operationalising the market risk management framework to support business growth while ensuring adequate risk control and oversight.

Market Risk Management Approach

Market risk management is a shared responsibility. Business units are responsible for undertaking proactive risk management along with their pursued trading strategies, while the Market Risk Management Department (MRMD) acts as the independent monitoring unit that ensures sound governance practices. Key risk management activities of identification, measurement, monitoring, control, and reporting are regularly reviewed to ensure they are commensurate with the Group's market risk taking activities.

Market Risk Identification

Risk identification is addressed via the Group's new product approval process at product inception. Market risks are also identified by our risk managers who proactively interact with the business units on an ongoing basis.

Market Risk Measurement

Value-At-Risk

Value-at-risk (VaR) is a key market risk measure for the Group's trading activities. The Board Risk Committee agrees on an aggregate market risk appetite based on VaR. VaR is measured and monitored by individual market risk components, namely interest rate risk, foreign exchange risk, equity risk, volatility risk, and credit spread risk, as well as at the aggregate level. The Group VaR is based on a historical simulation approach and is applied against a one-day holding period at a 99% confidence level. As VaR is a statistical measure based on historical market fluctuations, it might not accurately predict forward-looking market conditions all the time. As such, losses on a single trading day may exceed VaR, on average, once every 100 days.

Other Risk Measures

As the Group's main market risk is interest rate fluctuations, Present Value of a Basis Point (PV01), which measures the change in value of interest rate sensitive exposures resulting from one basis point increase across the entire yield curve, is an additional measure monitored on a daily basis. Other than VaR and PV01, the Group also utilises notional amounts and derivative greeks for specific exposure types, where appropriate, to supplement its risk measurements.

Stress Testing and Scenario Analyses

The Group also performs stress testing and scenario analyses to better quantify and assess potential losses arising from low probability but plausible extreme market conditions. The stress scenarios are regularly reviewed and fine-tuned to ensure that they remain relevant to the Group's trading activities, risk profile, and prevailing economic conditions. These analyses determine if potential losses from such extreme market conditions are within the Group's risk tolerance and capital level.

Risk Management

(This section forms an integral part of OCBC's audited financial statements)

The table below provides a summary of the Group's trading VaR profile by risk types for 2008.

VaR by Risk Type – Trading Portfolio

SGD Millions	2008 Year-end	2008 Ave	2008 Min	2008 Max	2007 Year-end	2007 Ave	2007 Min	2007 Max
Interest Rate Risk	**9.36**	**9.63**	**6.13**	**14.67**	8.94	6.77	3.23	12.34
Foreign Exchange Risk	**4.35**	**7.43**	**2.54**	**15.11**	8.85	5.67	0.86	13.42
Equity Risk	**0.49**	**1.60**	**0.07**	**3.34**	2.77	2.04	0.67	3.57
Volatility Risk [1]	**3.14**	**2.86**	**1.18**	**12.94**	1.64	1.38	0.49	3.74
Credit Spread Risk	**3.69**	**2.65**	**0.25**	**6.24**	0.86	0.90	0.29	1.78
Diversification Effect [2]	**6.67**	**9.93**	**NM[3]**	**NM[3]**	8.63	6.20	NM	NM
Aggregate Risk	**14.37**	**14.25**	**9.59**	**21.58**	14.43	10.56	4.83	19.68

(1) Volatility VaR includes risk related to option's volatility arising from all asset classes, i.e. interest rate, foreign exchange, and equity.

(2) Year-end and average aggregate VaR are not equal to the sum of the VaR of the respective risk type due to portfolio diversifications.

(3) NM – Not meaningful as the minimum and maximum VaR for each risk type and the aggregate VaR occurred on different days.

Risk Monitoring and Control

Limits

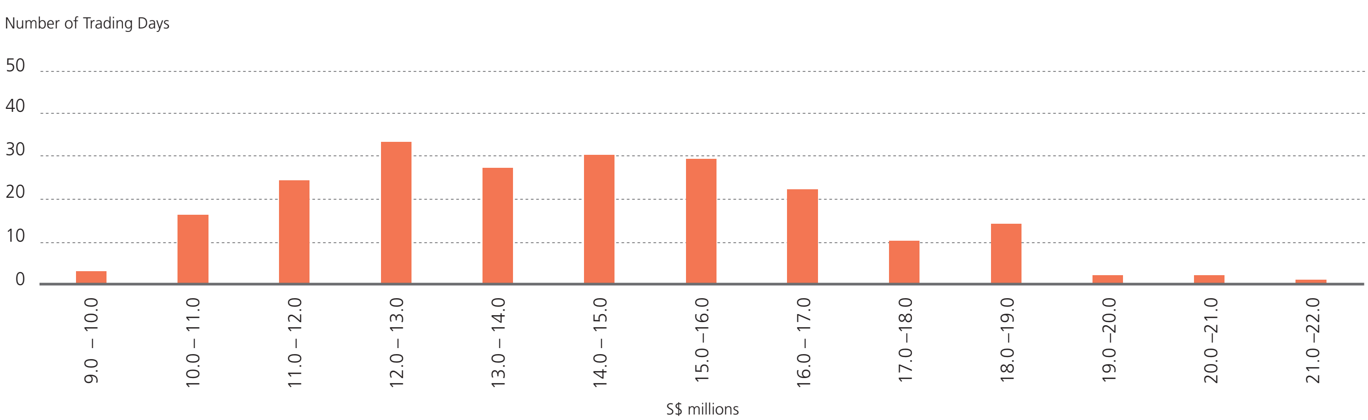
Only authorised trading activities may be undertaken by the various business units within the allocated limits. All trading risk positions are monitored on a daily basis against these limits by independent support units. Limits are approved for various business activity levels, with clearly defined exception escalation procedures. All exceptions are promptly reported to senior management for appropriate rectification. The imposition of limits on the multiple risks (VaR and risk sensitivities), profit/loss, and other measures allow for more holistic analysis and management of market risk exposures.

Model and Valuation Control

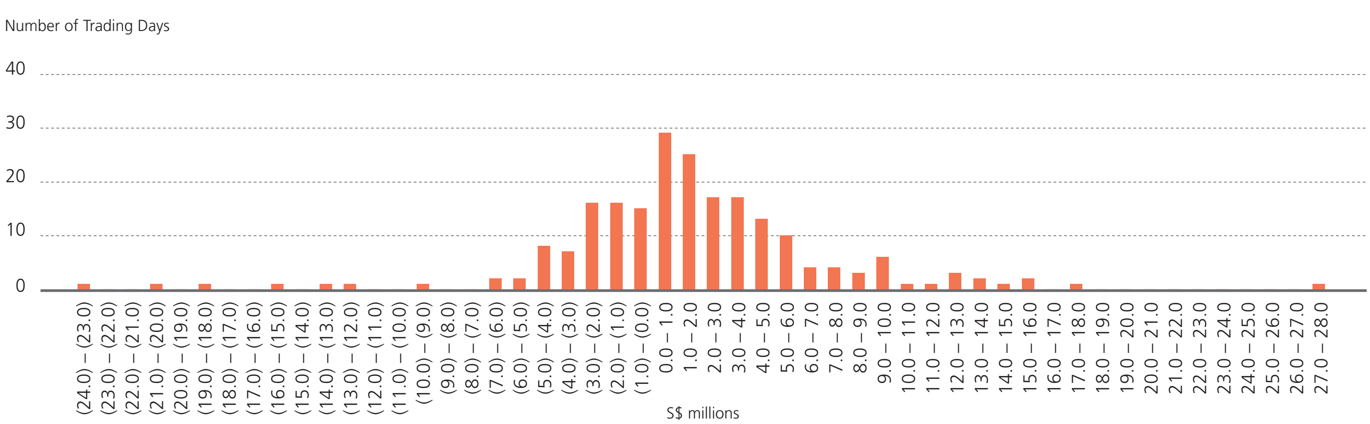
Model and valuation control is also an integral part of the Group's risk control process. Valuation and risk models are deployed in the Group for pricing of financial instruments and VaR calculation, respectively. The Group ensures the models used are fit for their intended purpose, through verifying the parameters, assumptions, and robustness associated with each model before it is commissioned for use.

Valuation reserves and other operational controls are also imposed to strengthen overall general and model risk management. To ensure the continued integrity of the VaR model, the Group conducts back-testing to confirm the consistency of actual daily trading profits and losses (P&L), as well as theoretical P&L against the model's statistical assumptions.

Frequency Distribution of Trading Book Daily VaR (One-Day Holding Period) for FY 2008



Frequency Distribution of Trading Book Daily Revenue for FY 2008



Risk Management

(This section forms an integral part of OCBC's audited financial statements)

ASSET LIABILITY MANAGEMENT

Asset liability management is the strategic management of the balance sheet structure and liquidity needs, covering structural interest rate management, structural foreign exchange management, and funding liquidity risk management.

Asset Liability Management Oversight and Organisation

The Asset Liability Management Committee (ALCO) is the senior management committee that oversees the Group's liquidity and balance sheet risks. ALCO is supported by the Asset Liability Management Department within Group Risk Management Division.

Asset Liability Management Approach

The Group's Asset Liability Management framework comprises structural interest rate risk management, structural foreign exchange risk management, and liquidity management.

Structural Interest Rate Risk

The Group faces interest rate risks arising from re-pricing mismatches of assets and liabilities from its banking businesses. These risks are monitored through tenor limits and net interest income changes. Structural interest rate risk policies are established and reviewed annually.

The Group performs in-depth analyses of current and projected balance sheet positions and the likely impact on the Group's net interest income. Group Treasury actively manages the re-pricing mismatches with the aid of daily re-pricing gap and sensitivity reports, against defined sensitivity limits. The re-pricing gap reports allow for the analysis of the re-pricing profile for the Group's assets and liabilities, while sensitivity reports identify the parts of the yield curve where the Group is most vulnerable to changes in interest rates.

The funding mix varies across the Group. In Singapore, the lending portfolio is largely funded by demand, savings, and fixed deposits. The major component of interest rate risks lies in the Group's extension of fixed rate products, such as housing loans, automobile loans, and term loans. The Group uses the interest rate swap market actively to manage these fixed rate exposures within its risk appetite.

Structural Foreign Exchange Risk

The Group's structural foreign exchange exposure arises primarily from its net investment in overseas branches, subsidiaries, associates, strategic equity investments, as well as property assets. The Group's policy is to protect the capital and financial soundness of the Group by identifying, measuring, and managing the potential adverse impact of structural foreign exchange risk exposures. OCBC actively manages this risk through derivative hedges and funding investments in foreign currencies, in order to minimise any potential impact to earnings.

Liquidity Risk

The Group ensures that we have sufficient funds to meet our contractual and regulatory financial obligations, as well as to undertake new transactions.

Our liquidity management process involves establishing liquidity risk limits, appropriate liquidity management policies, and contingency funding plans. In addition, the Group maintains ample and diversified funding sources and regularly accesses the wholesale financial markets. These processes are subject to regular reviews to ensure adequacy and appropriateness.

The Group has a liquidity framework that monitors liquidity positions and the management of liquidity risks from various scenarios. As a policy, the Group requires most subsidiaries and key overseas branches to be self-sufficient and to fund their own operations. It is the responsibility of each local management team to ensure compliance with local regulations and the Group's requirements on liquidity management. ALCO provides the oversight at the Group level, while each branch or subsidiary manages their liquidity risks by taking into account the complexity of the individual balance sheet, as well as the depth and liquidity of the local market.

The Group's liquidity position is monitored and managed through a maturity mismatch analysis that is performed on a contractual and behavioural basis across the major currencies. Simulations of the liquidity risk profile under stressed market scenarios are also performed. The Group also uses structural liquidity indicators, such as liquidity and deposit concentration ratios, to maintain an optimal funding mix and asset composition.

OPERATIONAL RISK MANAGEMENT

Operational risk is the risk of loss resulting from inadequate or failed internal processes, people, systems and management, or from external events. Operational risk includes legal risk and reputation risk.

The Group's operational risk management aims to minimise unexpected and catastrophic losses and to manage expected losses. This enables new business opportunities to be pursued in a risk-conscious and controlled manner.

Operational Risk Management Oversight and Organisation

The Operational Risk Management and Information Security Committee (ORISC) is the senior management committee that establishes the Group's operational risk management and information security frameworks and policies, and ensures that sound methodologies, risk measurements, and systems are implemented. ORISC also oversees the management of the Group's technology risk, fiduciary risk, and information security risk.

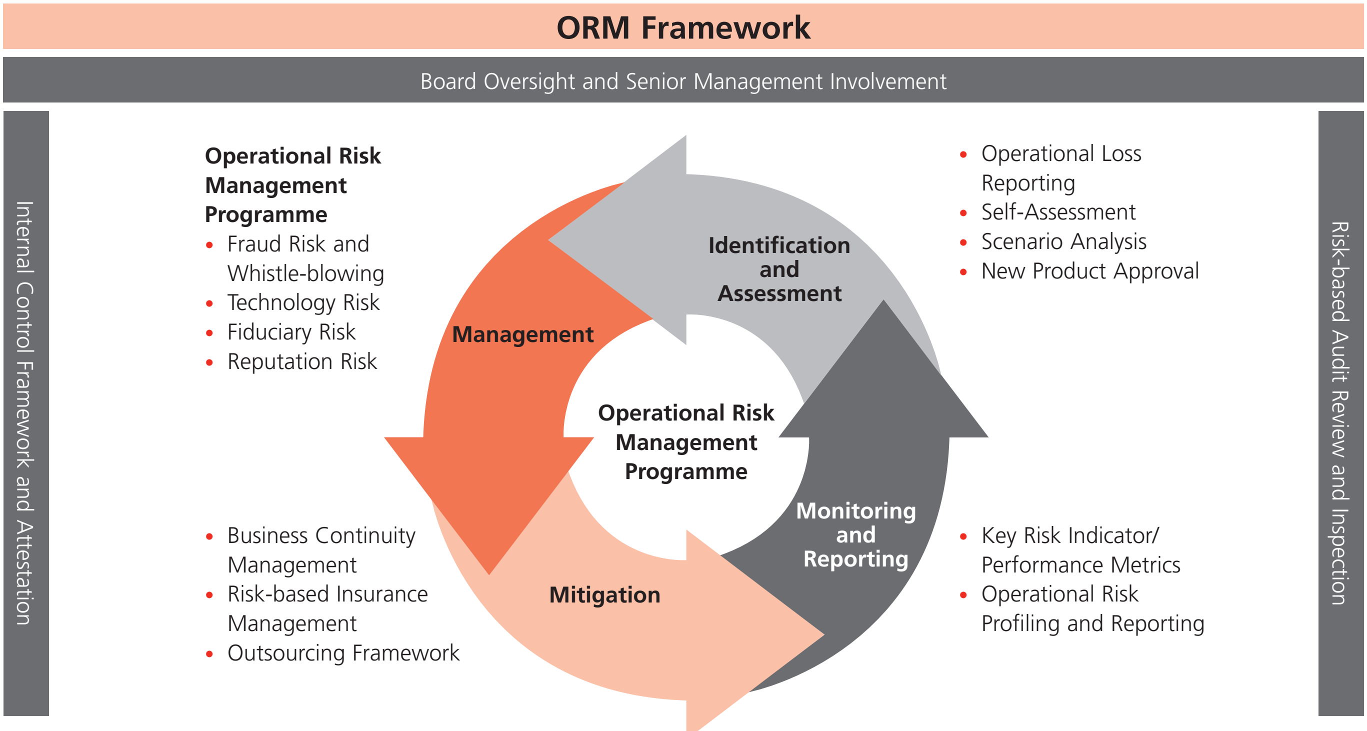
The Operational Risk Management (ORM) Department of Group Risk Management Division has established the ORM framework, including policies and methodologies. The ORM department also provides independent oversight of operational risk monitoring and control. The ORM programmes are actively implemented through the respective operational risk co-ordinators or managers in the business units.

Operational Risk Management Approach

The Group manages operational risks through a framework that ensures operational risks are properly identified, managed, monitored, mitigated, and reported in a structured and consistent manner. The framework is underpinned by an internal control system that reinforces the Group's control culture by establishing clear roles and responsibilities for staff and preserving their rights in executing their control functions without fear of intimidation. The Group recognises the importance of establishing a risk-awareness culture in the managing of operational risk through embedding risk management in the Group's core processes.

Risk Management

(This section forms an integral part of OCBC's audited financial statements)



Each business unit undertakes regular self-assessments of the risk and control environment to identify, assess, and measure its operational risks, which include regulatory and legal risks. Self-assessments utilise risk metrics to detect early warning signals. Risk metrics are monitored to measure effectiveness of internal controls and drive appropriate management actions before risks materialise into material losses.

Senior management also regularly attest to the CEO and Board of Directors on the effectiveness of the internal control system, as well as report key control deficiencies and appropriate remedial plans. Operational risk losses and incidents are used as information for reporting and for providing risk profiling information to the Board and senior management.

For information security, the Group protects and ensures the confidentiality, integrity, and availability of its information assets through implementing appropriate security controls to protect against the misuse or compromise of information assets.

The Group also monitors the health and security environment of the locations of the Group's key operations to assess possible threats that may adversely affect the Group and its employees.

To mitigate the impact of unforeseen operational risk events, the Group has business continuity management and crisis management programmes to ensure the uninterrupted availability of all business resources to support essential business activities. The Group also has insurance programmes, primarily to mitigate the risk of catastrophic events.

The Group's Fraud Risk Management (FRM) and whistle-blowing programmes help prevent and detect fraud or misconduct, as well as enable rapid and co-ordinated incident responses, including establishing the cause, remedial actions, and damage control procedures.

Reputation Risk Management

Reputation risk exposure is the current and future adverse impact on earnings and capital arising from negative public opinion or adverse regulatory actions, which would unfavourably affect new and existing relationships. The Group's Reputation Risk Management Programme focuses on understanding and managing our responsibilities toward our different stakeholders, and protecting our reputation. A key emphasis of the Programme is effective information sharing and engagement with stakeholders.

Fiduciary Risk Management

Fiduciary risk is the possibility that the Group may, in the course of managing funds or providing other services, exercise discretion, make decisions, or take actions that fail to satisfy the applicable standard of conduct appropriate for a trust relationship. The Group has a Fiduciary Risk Management Programme that focuses on compliance with applicable corporate standards with regular identification, assessment, mitigation, and monitoring of fiduciary risk exposures.

Regulatory and Legal Risks

Each business unit is responsible for the adequacy and effectiveness of controls in managing both regulatory and legal risks. An annual Regulatory Compliance Certification is provided by senior management to the CEO and Board of Directors on the state of regulatory compliance.