

# Basel II Pillar 3 Market Disclosures 31 December 2011

# BASEL II PILLAR 3 MARKET DISCLOSURES – 31 DECEMBER 2011

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# <u>ATTESTATION BY CHIEF EXECUTIVE OFFICER PURSUANT TO RISK WEIGHTED CAPITAL ADEQUACY FRAMEWORK (BASEL II) – DISCLOSURE REQUIREMENTS (PILLAR 3)</u>

The risk disclosures set out in the Risk Management Chapter and Basel II Pillar 3 Market Disclosure are generally in conformance with the Bank Negara Malaysia Risk Weighted Capital Adequacy Framework (Basel II) – Disclosure Requirements (Pillar 3) and Capital Adequacy Framework for Islamic Banks (CAFIB-Basel II) – Disclosure Requirements (Pillar 3) for the Group as at 31 December 2011.

CHEW SUN TEONG, JEFFREY DIRECTOR & CHIEF EXECUTIVE OFFICER

Kuala Lumpur

# **Risk Management**

OCBC (M) Group (hereinafter refer as the "Group") consists of OCBC Bank (Malaysia) Berhad ("OCBC Bank") and OCBC Al-Amin Bank Berhad ("OCBC Al-Amin") which are members of the Oversea-Chinese Banking Corporation Group ("OCBC Group") in Singapore.)

#### RISK MANAGEMENT IN OCBC GROUP

OCBC Group believes that sound risk management is essential to ensuring success in our risk-taking activities. Our philosophy is to ensure risks and returns remain consistent with our established risk appetite. To achieve this, we regularly refine our risk management approaches to ensure we thoroughly understand the risks we are taking to identify any emerging portfolio threats at an early stage, and to develop timely and appropriate risk-response strategies.

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

- *Risk appetite* The Board of Directors approves the OCBC Group's risk appetite, and risks are managed in alignment with the risk appetite. Risk-taking decisions must be consistent with strategic business goals and returns should compensate for the risk taken.
- *Risk frameworks* The OCBC 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.

The Board of Directors and senior management provide the direction to OCBC Group's effective risk management that emphasises on well-considered risk-taking and proactive risk management. This is reinforced with appropriate risk management staff, ongoing investments in risk systems, regular review and enhancement of risk management policies and procedures for consistent application, overlaid with a strong internal control environment throughout OCBC Group. Accountability for managing risks is jointly owned among customer-facing and product business units, dedicated functional risk management units, as well as other support units such as Operations and Technology. Group Audit also provides independent assurance that OCBC Group's risk management system, control and governance processes are adequate and effective. Rigorous portfolio management tools such as stress testing and scenario analyses identify possible events or market conditions that could adversely affect OCBC Group. These results are taken into account in OCBC Group's capital adequacy assessment.

#### RISK GOVERNANCE AND ORGANISATION

At OCBC (M) Group, the Board of Directors establishes the Group's risk principles. The Risk Management Committee is the principal Board committee that establishes the Group's risk principles and 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 Risk Management Committee also oversees the establishment and operation of the risk management systems, as well as oversees 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 Risk Management 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. The Group's risk management and reporting systems are designed to ensure that risks are comprehensively captured and assessed to support well-considered decision making, and that the relevant risk information is effectively conveyed to the appropriate senior management executives for those risks to be addressed and risk response strategies to be formulated. To ensure the objectivity of the risk management functions, compensation of risk officers is determined independently of other business areas and is reviewed regularly to ensure compensation remains competitive with market levels.

Credit officers are also involved in transaction approvals, and personal approval authority limits are set 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 on policies, profiles, and activities pertaining to the relevant risk types. These include the Credit Risk Management Committee<sup>1</sup>, the Market Risk Management Committee<sup>1</sup>, 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. 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.

<sup>&</sup>lt;sup>1</sup> These refer to OCBC Group-level committees in Singapore. The Credit Risk Management Committee at OCBC (M) Group is responsible in reviewing and managing the Group's credit portfolio, as well as aligning credit risk management with business strategy and planning.

#### BASEL II

The Group has implemented Bank Negara Malaysia ("BNM") Risk-Weighted Capital Adequacy Framework ("RWCAF") for banks incorporated in Malaysia with effect from 1 January 2010. BNM RWCAF 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 framework provides a stronger linkage between capital requirements and the level of risks undertaken by banks to enhance their risk management practices and it establishes minimum capital requirements to support credit, market, and operational risks. As part of enhanced public disclosures on risk profile and capital adequacy under BNM RWCAF Pillar 3 Guideline, the Group has made additional disclosures starting 2010. Please refer to the OCBC (M) Group Basel II Pillar 3 Market Disclosure section in the financial statements for more information.

The Group has adopted the Foundation Internal Ratings-Based ("F-IRB") approach and supervisory slotting criteria to calculate credit risk-weighted assets for major non-retail portfolios, and the Advanced Internal Ratings-Based ("A-IRB") approach for major retail and small business lending portfolios. Other credit portfolios are on the Standardised Approach ("SA") and they 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, the Group has adopted the Standardised Approach. 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. Initiatives are in place to move toward Internal Model Approach for market risk.

For operational risk, the Group has adopted the Basic Indicator Approach and has put in place various operational risk related framework and programmes to enable it to comply with the International Convergence of Capital Measurement and Capital Standards (Basel II).

The Group has established an Internal Capital Adequacy Assessment Process (ICAAP) which leverages on the OCBC Group's process. Capital adequacy assessments and plans, incorporating stress test results, will be submitted annually to BNM.

Implementing the Basel II framework is an integral part of our efforts to refine and strengthen, as well as to ensure our management of risks is appropriate for the risks we undertake. Group management remains vigilant to ongoing industry and regulatory developments.

#### 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 and issuer 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 Risk Management Committee in managing the Group's overall credit risk exposures, taking a proactive view of risks and to position the credit portfolio. CRMC also reviews the Group's credit risk philosophy, framework, and policies, and aligns credit risk management with business strategy and planning. The Committee 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, Risk Management Committee, and the 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, formulate and implement timely corrective action, 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 in a consistent manner. While Group policies set out minimum credit risk management standards, the key to our success lies also in the experience and sound judgement of our credit officers and embedded regular credit review process. The internal

audit review also provides an independent assessment of the effectiveness and adequacy of our credit risk management practices.

Credit underwriting criteria are regularly updated to reflect prevailing economic conditions in our key markets. In addition, we remain selective in purchasing debt securities. Portfolio reviews and stress tests are conducted regularly to identify any portfolio vulnerabilities. Fair dealing is an integral part of OCBC's core corporate values: credit extensions are only offered after a comprehensive assessment of the borrower's creditworthiness, as well as the suitability and appropriateness of the product offering.

#### Lending to Consumers and Small Businesses

Credit risks for the consumer and small business sectors are managed on a portfolio basis. Such products include mortgages, credit cards, commercial property loans, and business term loans. Loans are underwritten under product or credit 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

Counterparty credit risks from our trading, derivative, and debt securities activities are closely monitored and actively managed to protect against potential losses in replacing a contract if a counterparty defaults. Counterparty credit limits are established for each counterparty following an assessment of the counterparty's creditworthiness in accordance with internal policies, as well as the suitability and appropriateness of the product offering. Credit exposures are also controlled through independent monitoring and reporting of excesses and breaches against approved limits and risk mitigation thresholds.

The Group has limited exposure to asset-backed securities and collateralised debt obligations and is not active in securitisation activities.

#### **Internal Credit Rating Models**

Internal credit rating models are an integral part of the 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, remedial management, stress testing, and internal assessment of the adequacy of capital and provisions.

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 the CRMC or the Risk Management 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, as well as small business lending. 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 BNM. 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 low numbers 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, supervisory slotting approach has been adopted.

# Standardised Approach for Other Portfolios

Other credit portfolios, such as exposures to sovereigns and Islamic personal financing are under the standardised approach, and will be progressively migrated to the rating-based approaches. 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 weighted assets and regulatory capital. Approved external rating agencies include Standard & Poor's, Moody's, Fitch, Rating Agency Malaysia ("RAM") and Malaysian Rating Corporation Berhad ("MARC").

#### **Credit Risk Control**

#### Credit Risk Mitigation

Transactions are entered into primarily on the strength of a borrower's creditworthiness, ability to repay, and repayment sources. To mitigate credit risk, the Group accepts collateral as security, subject to the Group's policies on collateral eligibility. The types of collateral include cash and marketable securities, residential and commercial real estate, vessels, aircraft, and automobiles, and other tangible business assets, such as inventory and equipment.

The value of collateral is prudently assessed on a regular basis, and valuations are performed by independent appraisers. Discounts are applied to the market value of collateral, reflecting the quality, liquidity, volatility, and collateral type. The loan-to-value ratio is a key factor in the credit granting decision. The Group also accepts guarantees from individuals, corporates, and institutions as a form of support.

To mitigate counterparty risk, financial collateral may be taken to partially or fully cover mark-to-market exposures on outstanding positions. If financial collateral other than cash is taken, a haircut may be 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. Master agreements, such as those from International Swaps and Derivatives Association ("ISDA"), are also used and these allow for close out netting if either counterparty defaults. 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.

Some collateral and netting 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.

#### Managing Credit Risk Concentrations

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, counterparties and industry segments. Countries and cross-border transfer risks limits are established at OCBC Group level and we are guided by these limits set by OCBC Group. 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 taking into consideration factors such as impact on earnings and capital as well as regulatory constraints.

While we are steadily diversifying our exposure, our credit risk concentrations remain significant in our traditional home market of Malaysia. In terms of industries, we have a significant exposure to the household sector in Malaysia. 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 viability, and emerging market conditions. Regular stress tests are performed on the portfolio.

The Group is in compliance with BNM Circular on Guidelines on Lending to the Broad Property Sector ("BPS") and Lending for the Purchase of Shares and Units of Unit Trust Funds dated 29/03/1997 which limits BPS exposure to not more than 20% of its total outstanding loans & advances.

### **Remedial Management**

The Group has been able to anticipate areas of potential weakness at an early stage through the regular monitoring of the credit quality of our exposures, with an emphasis on a proactive and forward-looking approach to early problem recognition. We value long-term relationships with our customers by working closely with them at the onset of their difficulties. Applying specialist remedial management techniques even before the loan becomes non-performing allows us to maintain sound asset quality and promote customer loyalty and retention.

Loans, advances and financing are categorised according to the Group's internal credit grading system as "Pass" or "Special Mention", "Substandard", "Doubtful" or "Loss(Bad)". A loan, advance and financing of the Group and the Bank is classified as impaired in accordance to the guidelines on Classification and Impairment Provisions for Loans/Financing issued by BNM where loans, advances and financing is past due for more than 90 days or 3 months; or where the customer grading is downgraded to a Substandard or worse classification in accordance to the Group and the Bank's borrower classification grades. These allow us to have a consistent approach to early problem recognition and effective remedial management.

The Group has established specialist and centralised units to manage problem exposures to ensure timely impaired loans reduction and maximise loan recoveries. Time, risk-

based, and discounted cash flow 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 impaired loans. The Group uses a suite of collection information systems to constantly fine-tune and optimise its objectives of recovery and effectiveness.

#### Impairment Allowances on Loans, Advances and Financing

The Group maintains impairment allowances for loans that are sufficient to absorb credit losses inherent in its loan portfolio. Total loan loss reserves comprise individually assessed impairment allowances against each impaired loan and collectively assessed impairment allowances for all loans on books to cover any losses that are not yet evident. Effective from 1 Jan 2010, the Group's policy for loan impairment is guided by Financial Reporting Standard 139 (FRS 139) and BNM Classification and Impairment Provisions for Loans/ Financing.

Individually assessed impairment allowance is provided if the recoverable amount is lower than the net carrying amount of the loans, advances and financing. Recoverable amount refers to the present value of estimated future cash flows discounted at original effective interest rate. If a loan has a variable interest rate, the discount rate for measuring any impairment loss is the current effective interest rate.

The Group maintains a collectively assessed impairment allowance of at least 1.5% of total outstanding loans, advances and financing, net of individually assessed impairment allowance as at the reporting date based on the transitional provision as allowed by BNM pursuant to the guidelines on Classification and Impairment Provisions for Loans/Financing issued by BNM.

#### Write-Offs

Uncollectible loans, advances and financing or portion of a loans, advances and financing classified as impaired is written off after taking into consideration the realisable value of collateral, if any, when in the judgement of the management, there is no prospect of recovery.

#### Ceasing of Interest Accrual on Loans, Advances and Financing

When a loan is classified as impaired loans, 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. Interest income on impaired loans is recognised on receipt basis.

#### Collateral Held Against Impaired Loans

Real estate in Malaysia forms the main type of collateral for the Group's impaired loans. 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, advances and financing unless the accounts are related and legal cross collateralisation of the facilities have been provided for.

#### 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. The Group is exposed to market risks from its trading activities.

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

#### Market Risk Management Oversight and Organisation

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

ALCO 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 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 Risk Management 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, and credit spread risk, as well as at the

aggregate level. 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, CS01 (1 Basis Point move in Credit Spreads) 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 profit, 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 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. There is independent sourcing of market rates used for risk measurements

and valuation by the MRMD, thereby adding to the integrity of the trading P&L, risk measures and limit control.

#### ASSET LIABILITY MANAGEMENT

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

#### **Asset Liability Management Oversight and Organisation**

The Asset Liability Management Committee ("ALCO") is responsible for the oversight of our Group liquidity and balance sheet risks. The ALCO is chaired by the CEO and includes senior management from the business, risk and support units. The ALCO is supported by MRMD within Group Risk Management Division.

### **Asset Liability Management Approach**

The Asset Liability Management framework comprises liquidity risk management and structural interest rate risk management.

#### Liquidity Risk

The objective of liquidity risk management is to ensure that there are sufficient funds to meet contractual and regulatory financial obligations as well as to undertake new transactions.

Our liquidity management processes involve establishing liquidity management policies and limits, regular monitoring against liquidity risk limits, regular stress testing, and establishing contingency funding plan. These processes are subject to regular reviews to ensure that they remain relevant in the context of prevailing market conditions.

Liquidity monitoring is performed daily within a framework for projecting cash flows on a contractual and behavioural basis. Simulations of liquidity exposures under stressed market scenarios are also performed and the results are taken into account in the risk management processes. Structural liquidity indicators such as liquidity and deposit concentration ratios are employed to maintain an optimal funding mix and asset composition. Funding strategies are in place to provide effective diversification and stability in funding sources across tenors and product. In addition, we maintain a level of liquid assets exceeding the regulatory requirement for use in the event of a liquidity crisis. These assets comprise statutory reserve eligible securities as well as marketable shares and debt securities.

#### Structural Interest Rate Risk

The primary goal of interest rate risk management is to ensure that interest rate risk exposures are maintained within defined risk tolerances.

Interest rate risk is the risk to earnings and capital arising from exposure to adverse movements in interest rates. The material sources of interest rate risk are repricing risk, yield curve risk, basis risk and optionality risk. A range of techniques are employed to measure these risks from an earnings perspective. One method involves the simulation of the impact of a variety of interest rate scenarios on the net interest income. Other measures include interest rate sensitivity measures such as PV01 as well as repricing gap profile analysis.

Limits and policies to manage interest rate exposures are established in line with the Group's strategy and risk appetite, appropriately approved, and reviewed regularly to ensure they remain relevant to the external environment. Control systems are established to monitor the profile against the approved risk thresholds.

#### **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.

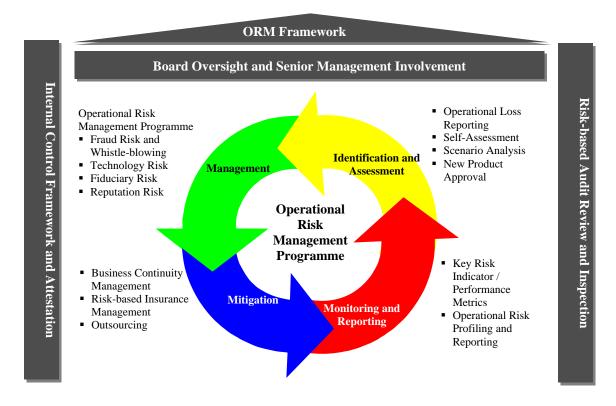
#### **Operational Risk Management Oversight and Organisation**

The Operational Risk Management and Information Security Committee ("ORISC") is the senior management committee that oversees the execution of the Group's Operational Risk Management, Information Security and Technology Risk practices, and ensures that the respective risk management programmes are appropriate, effective, and support the Group's business strategy. ORISC also has oversight over the management of the Group's fiduciary, reputation and legal 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. 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 risk through a framework that ensures operational risk is 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 or reprisal. The Group recognises the importance of establishing a risk-awareness culture in the managing of operational risk by embedding risk management in the Group's core processes. The Group started the roll-out of an Enterprise Operational Risk Management System that will provide the Group with a web-based integrated operational risk management system that brings together qualitative and quantitative tools.



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

Senior management also attest annually to the CEO and Risk Management Committee 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 senior management and the Risk Management Committee.

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. New and appropriate security technologies are regularly identified and implemented as part of the Group's technology risk management strategy to mitigate any possible threats to the Group's information technology environment.

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. On an annual basis, Senior Management provides an attestation to the Risk Management Committee on the state of business continuity management including the internally developed business continuity management maturity scorecard, extent of alignment to BNM guidelines and Group's requirements and declaration of residual risk. 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.

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. The Group is proactively strengthening its FRM infrastructure to manage emerging threats through new programmes and initiatives.

To further strengthen the management of operational risk in the Group, the Emerging Risk Forum was set up in 2011. As banking operations become more complex and given the changing trend in the risk outlook, there is a need to pre-empt the relevant emerging risks so as to minimise their impact on the Group. Towards this end, the Emerging Risk Focus Group assesses emerging operational risk so that the Group is able to make more informed and timely risk management decisions.

#### Reputation Risk Management

Reputation risk is the current or prospective risk to earnings and capital arising from adverse perception of the image of the Group on the part of customers, counterparties, shareholders, investors and regulators. The Group has a reputation risk management programme to manage any such potential current, or future adverse impact on earnings and continued access to sources of funding. The 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

The Group has a fiduciary risk management programme to manage risks associated with fiduciary relationships created in managing funds or providing other services. The programme provides guidelines on regular identification, assessment, mitigation, and monitoring of fiduciary risk exposures, to ensure the Group's compliance with applicable corporate standards.

#### 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.

#### SHARIAH GOVERNANCE

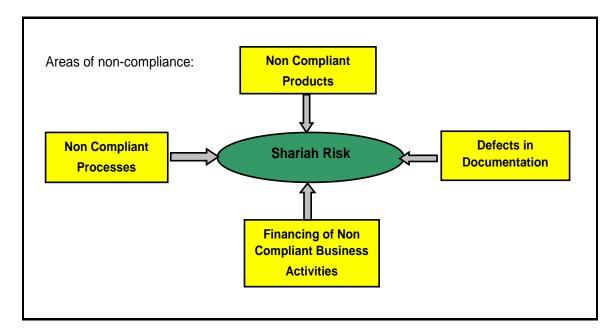
To ensure all the operations and activities of OCBC Al-Amin comply with Shariah rules and principles at all times, OCBC Al-Amin is governed by the Shariah Governance Framework of OCBC Al-Amin Bank Berhad ("SGF") which in essence sets out the following:

- Defines Shariah governance structures, policies and processes to ensure that all its operations and business activities are in accordance with Shariah;
- Provides comprehensive guidance to the Board, Management and Shariah Committee ("SC") of OCBC Al-Amin in discharging their respective duties in matters relating to Shariah; and
- Outlines the functions relating to Shariah Review, Shariah Audit, Shariah Research and Secretariat, and Shariah Risk Management.

The SGF is applicable to all employees of OCBC Al-Amin and also extended to all employees of OCBC Bank who are involved in the business of OCBC Al-Amin under shared service and other service providers under the outsourcing arrangements.

#### Shariah Risk

Shariah risk arises from Islamic banks' failure to comply with the Shariah rules and principles as determined by the Shariah Committee of Islamic Banks or relevant bodies, such as BNM's Shariah Advisory Council.



OCBC Al-Amin, has put in place the following processes to manage the potential Shariah Non Compliance risk event arising from its activities and operations:

- 1. Provide training and instil awareness on Shariah Compliance;
- 2. Identify and assess potential Shariah Risk;
- 3. Mitigate and control Shariah Risk;
- 4. Monitor and report Shariah Risk Events.

#### Note:

In this document, for whatever that is related to Islamic Banking, the following terms shall apply:

- 1. Risk Weighted Capital Adequacy Framework (RWCAF) also refers to Capital Adequacy Framework for Islamic Bank (CAFIB) (inclusive of Disclosure Requirements for Pillar 3 where applicable);
- 2. Loan also refers to Financing;
- 3. Borrower also refers to Customer;
- 4. Interest also refers to Profit;
- 5. Interest Rate also refers to Benchmark Rate;
- 6. Lending also refers to Financing.

# **Basel II Pillar 3 Market Disclosure**

(OCBC Bank (M) Berhad Group - Position as at 31 December 2011)

The purpose of this disclosure is to provide the information in accordance with BNM Risk Weighted Capital Adequacy Framework (Basel II) – Disclosure Requirements (Pillar 3) and Capital Adequacy Framework for Islamic Bank (CAFIB - Basel II) – Disclosure Requirements (Pillar 3) Guidelines. This supplements the disclosure in the Risk Management Chapter as well as the related information in the Notes to the Financial Statements.

Exposures and Risk Weighted Assets (RWA) by Portfolio

Exposures and Mak Weighted Assets (MWA) by I official	EAD <sup>1</sup>	
	after CRM <sup>2</sup>	RWA
	RM million	RM million
- W		
Credit Risk		
Standardised Approach		
Corporate	78	73
Sovereign & Central Bank	13,850	94
Retail	804	641
Equity	107	107
Securitisation	1	#
Others	795	795
Total Standardised	15,635	1,710
Internal Ratings-Based (IRB) Approach		
Foundation IRB		
Corporate	19,525	18,561
Bank	8,716	2,042
Public Sector Entity	11	2,042
Advanced IRB		'
Residential Mortgage	16,255	2,220
	•	2,220 341
Qualifying Revolving Retail Other Retail - Small Business	928	
	9,088	3,604
Specialised Lending under Supervisory Slotting Criteria	3,370	4,080
Total IRB	57,893	30,849
Amount Absorbed by PSIA (IRB Approach)	236	204
Total Credit Risk After Effects of PSIA <sup>3</sup>	73,764	32,763
Large Exposure Risk Requirement		-
Market Risk		
Standardised Approach		1,279
Amount Absorbed by PSIA		=
Total Market Risk After Effects of PSIA		1,279
Operational Risk		
Basic Indicator Approach		3,211
Total Operational Risk		3,211
Total Operational Mon		J,£ i i
Total RWA		37,253

#### Note

<sup>&</sup>lt;sup>1</sup> EAD refers to exposure at default after credit risk mitigation in this entire document

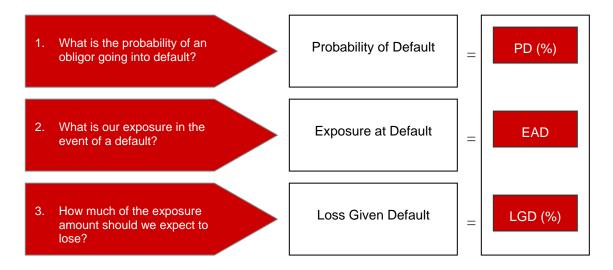
<sup>&</sup>lt;sup>2</sup> Refers to credit risk mitigation

<sup>&</sup>lt;sup>3</sup> Refers to Profit Sharing Investment Account

<sup>&</sup>quot;#" represents amount less than RM0.5 million

#### **CREDIT RISK**

With Basel II implementation, OCBC Bank (M) Berhad Group has adopted the Internal Ratings-Based (IRB) Approach for major credit portfolios, where 3 key parameters – Probability of Default (PD), Exposure at Default (EAD) and Loss Given Default (LGD) are used to quantify credit risk.



# **Credit Exposures under Standardised Approach**

Credit exposures under standardised approach are mainly exposures to sovereign and debt securities. Rated exposures relate mainly to sovereign and debt securities while unrated exposures relate mainly to Islamic personal financing and other assets.

Risk Weight	EAD RM million
0%	13,621
20% - 35%	169
50% - 75%	697
100%	1,022
>100%	19
Total	15,528
Rated exposures	13,800
Unrated exposures	1,728

Note: Excludes Equity

#### **Equity Exposures under Standardised Approach**

Equity exposures for regulatory capital computation were risk weighted in accordance with BNM Risk-Weighted Capital Adequacy Framework (Basel II – Risk-Weighted Assets Computation) under the standardised approach.

Risk Weight	RM million
100%	107
200%	<u>-</u>
Total	107

#### **Securitisation Exposures Purchased**

	EAD	RWA
Risk Weight	RM million	RM million
up to 20%	1	#
> 20% to 50%	-	-
> 50% to 100%	-	-
> 100% to 500%	-	-
> 500%	-	-
Deductions from Tier 1 and Tier 2 Capital	-	-
Total	1	#

<sup>&</sup>quot;#" represents amount less than RM0.5 million

#### **Specialised Lending Exposures under Supervisory Slotting Criteria**

Specialised lending exposures include financing of income producing real estate as well as project and object finance. For income producing real estate, mapping is made to supervisory categories based on their obligor grades. For other specialised lending exposures, a simplified approach of slotting to the 'Satisfactory' category has been adopted as an interim measure.

	EAD RM million	Average Risk Weight
Strong	-	-
Good	14	90%
Satisfactory	3,300	122%
Weak	17	265%
Default	39	NA
Total	3,370	121%

# Credit Exposures under Foundation Internal Ratings-Based Approach (F-IRBA)

Corporate exposures are mainly exposures to corporate and institutional customers as well as major non-bank financial institutions. Bank exposures are mainly exposures to commercial banks. Public sector entity exposures refer to exposures to administrative bodies of federal/state/local governments.

#### **Corporate Exposures**

PD Range	EAD RM million	Average Risk Weight
up to 0.05%	543	25%
> 0.05 to 0.5%	4,870	56%
> 0.5 to 2.5%	8,353	89%
> 2.5 to 9%	4,361	143%
> 9%	988	229%
Default	646	NA
Total	19,761	95%

Note: Corporate EAD includes amount absorbed by PSIA of RM236 million.

#### **Bank Exposures**

PD Range	EAD RM million	Average Risk Weight
up to 0.05%	4,981	9%
> 0.05 to 0.5%	2,693	35%
> 0.5 to 2.5%	1,024	60%
> 2.5 to 9%	#	111%
> 9%	18	194%
Default	-	NA_
Total	8,716	23%

#### **Public Sector Entity Exposures**

PD Range	EAD RM million	Average Risk Weight
up to 0.05%	11	9%
> 0.05 to 0.5%	-	-
> 0.5 to 2.5%	-	-
> 2.5 to 9%	-	-
> 9%	-	-
Default	-	NA
Total	11	9%

<sup>&</sup>quot;#" represents amount less than RM0.5 million

# Credit Exposures under Advanced Internal Ratings-Based Approach (A-IRBA)

Residential Mortgages are loans to individuals secured by residential properties. Qualifying Revolving Retail exposures are credit card facilities to individuals. Other Retail – Small Business exposures include lending to small businesses and commercial property loans to individuals.

#### Residential Mortgages

	EAD	Undrawn Commitment	EAD Weighted Average	
PD Range	RM million	RM million	LGD	Risk Weight
up to 0.5%	12,650	2,153	13%	7%
> 0.5 to 3%	2,547	413	16%	29%
> 3 to 10%	532	51	14%	52%
> 10%	232	4	14%	79%
100%	294	-	21%	47%
Total	16,255	2,621	14%	14%

#### Qualifying Revolving Retail Exposures

	EAD	Undrawn Commitment	EAD Weight	ed Average
PD Range	RM million	RM million	LGD	Risk Weight
up to 0.5%	626	435	84%	10%
> 0.5 to 3%	180	74	90%	47%
> 3 to 10%	62	15	90%	129%
> 10%	52	17	90%	221%
100%	8	-	90%	0%
Total	928	541	86%	37%

#### Other Retail - Small Business Exposures

	EAD	Undrawn Commitment	EAD Weighted Average	
PD Range	RM million	RM million	LGD	Risk Weight
up to 0.5%	2,333	727	27%	12%
> 0.5 to 3%	3,746	569	32%	33%
> 3 to 10%	2,454	279	37%	58%
> 10%	263	5	35%	89%
100%	292	1	39%	143%
Total	9,088	1,581	32%	40%

# Actual Loss and Expected Loss for Exposures under Foundation and Advanced IRB Approaches

Actual loss refers to impairment loss allowance and direct write-off to the income statement during the year. Expected loss ("EL") represents model derived and/or regulatory prescribed estimates of future loss on potential defaults over a one-year time horizon. Comparison of the two measures has limitations because they are calculated using different methods. EL computations are based on LGD and EAD estimates that reflect downturn economic conditions and regulatory minimums, and PD estimates that reflect long run through-the-cycle approximation of default rates. Actual loss is based on accounting standards and represents the point-in-time impairment experience for the financial year.

	Actual Loss for the year ended 31 December 2011 RM million	Regulatory Expected Loss (Non-defaulted) as at 31 December 2010 RM million
Corporate	(34)	195
Bank	- -	5
Other Retail - Small Business	25	NA
Retail	19	39
Total	10	239

Note: Other Retail – Small Business portfolio was migrated to the IRB approach with effect from 2011. There was hence no Regulatory EL as at end 2010.

#### **Exposures Covered by Credit Risk Mitigation**

	Eligible Financial Collateral RM million	Other Eligible IRB Collateral RM million	Amount by which credit exposures have been reduced by eligible credit protection RM million
Standardised Approach			
Corporate	-	-	-
Sovereign & Central Bank	-	-	-
Retail	59	-	-
Others	-	-	<u> </u>
Total	59	<u> </u>	
Foundation IRB Approach			
Corporate	666	3,330	68
Bank	-	-	
Total	666	3,330	68

#### Note:

- 1. Not all forms of collateral or credit risk mitigation are included for regulatory capital calculations.
- 2. Does not include collateral for exposures under Advanced IRB Approach and Specialised Lending.

#### **Counterparty Credit Risk Exposures**

Replacement Cost Potential Future Exposure Less: Effects of Netting  EAD under Current Exposure Method Analysed by type: Foreign Exchange Contracts and Gold Interest Rate Contracts Equity Contracts Precious Metals Contracts
Potential Future Exposure 1,25  Less: Effects of Netting  EAD under Current Exposure Method 2,01  Analysed by type: Foreign Exchange Contracts and Gold 1,08 Interest Rate Contracts 73 Equity Contracts 17
Less: Effects of Netting  EAD under Current Exposure Method 2,01  Analysed by type: Foreign Exchange Contracts and Gold Interest Rate Contracts 73 Equity Contracts 17
EAD under Current Exposure Method  Analysed by type: Foreign Exchange Contracts and Gold Interest Rate Contracts Equity Contracts  17
Analysed by type:  Foreign Exchange Contracts and Gold Interest Rate Contracts Equity Contracts  173
Foreign Exchange Contracts and Gold 1,08 Interest Rate Contracts 73 Equity Contracts 17
Interest Rate Contracts 73 Equity Contracts 17
Equity Contracts 17
·
Dragious Matala Contracta
Precious Metals Contracts
Other Commodities Contracts
Credit Derivative Contracts
Less: Eligible Financial Collateral
Net Derivatives Credit Exposure 2,01

Note: Not all forms of collateral or credit risk mitigation are included for regulatory capital calculations.

#### MARKET RISK

# Exposure, Risk Weighted Assets and Capital Requirement by Market Risk Type under Standardised Approach

	Gross Ex	Gross Exposure		Min. Capital
	Long Position	<b>Short Position</b>	Assets	Requirement
	RM million	RM million	RM million	RM million
1 B B'. I	0= 000	0.4.000	0.40	
Interest Rate Risk	25,263	24,688	849	68
Foreign Currency Risk	299	66	299	24
Equity Risk	333	334	12	1
Commodity Risk	-	-	-	-
Inventory Risk	-	-	-	-
Options Risk	8	1	119	9
Total	25,903	25,089	1,279	102

#### **Interest Rate Risk in Banking Book**

The interest rate risk in the banking book is monitored on a monthly basis and behavioural assumptions for indeterminate deposits have been implemented. The impact on net interest income of the banking book is simulated under various interest rate assumptions for major currencies. As at end-Dec 2011, based on a 50-basis point increase in MYR interest rate, the net interest income is estimated to increase by RM72.2 million. The corresponding impact from a 50-basis point decrease is an estimated reduction of RM71.8 million in net interest income.

#### **EQUITY EXPOSURES**

Disclosures on valuation and accounting treatment of equity holdings can be found in Notes to the Financial Statements C (ii) (d) and J (ii).

Equity exposures comprise investment in equity instruments that do not have a quoted market price in an active market and whose fair value cannot be reliably measured are measured at cost.

#### **Carrying Value of Equity Exposures**

	RM million
Quoted equity exposure - AFS	12
Unquoted equity exposure - AFS	108
Quoted equity exposure - Associates	-
Unquoted equity exposure - Associates	<u>-</u>
Total	120

#### **Realised and Unrealised Gains and Losses**

	RM million
Gains/(losses) from disposal of AFS equities	3
Unrealised gains/(losses) included in fair value reserve	5_
Total	8