

Company No. 295400 W



OCBC Bank (Malaysia) Berhad
(Incorporated in Malaysia)

Basel II Pillar 3 Market Disclosures 31 December 2017

The disclosure in this section refers to OCBC Bank (M) Berhad Group position. OCBC Bank (M) Berhad Group consists of OCBC Bank (Malaysia) Berhad and OCBC Al-Amin Bank Berhad which are members of the Overseas-Chinese Banking Corporation Group in Singapore.

BASEL II PILLAR 3 MARKET DISCLOSURES – 31 DECEMBER 2017

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OCBC Bank (Malaysia) Berhad
(Incorporated in Malaysia)

**ATTESTATION BY CHIEF EXECUTIVE OFFICER PURSUANT TO RISK WEIGHTED
CAPITAL ADEQUACY FRAMEWORK (BASEL II) – DISCLOSURE REQUIREMENTS
(PILLAR 3)**

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 2017.

ONG ENG BIN
CHIEF EXECUTIVE OFFICER

Kuala Lumpur

Risk Management

OCBC (M) Group (hereinafter referred 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

Effective risk management is critical to the long-term sustainability of OCBC Group. To achieve this, we have identified the following key high-level risk management fundamentals to forge a common approach to managing risk at the enterprise level.

- **Risk Culture** – The Board of Directors (“Board”) and top management sets the tone for a strong risk culture, supported by a robust internal control environment throughout the OCBC Group. All customer-facing business units, product teams, independent functional risk management units and other support units such as Operations and Technology are all actively involved in the risk management process.
- **Risk Appetite** – The Board of Directors (“Board”) sets the OCBC Group’s risk appetite, which defines the level and nature of risks that the OCBC Group takes. Risk-taking decisions are aligned with strategic business goals and risk-adjusted return expectations. Portfolio risk limits are cascaded from the risk appetite and are used to establish business-operating boundaries.
- **Risk Management Frameworks** – The overarching risk management frameworks are supported by policies, methodologies, tools, processes and controls across the various risk types. These are built around robust governance structures to ensure that they are effective, comprehensive, and consistent.
- **Holistic Risk Management** – Risks are managed holistically, taking into account the potential interconnectivity among risk types. Both business and risk-control units actively participate in regular forums to identify and assess material emerging risks and opportunities from changes in the business environment. Quantitative stress testing and sensitivity analysis supplemented with qualitative analysis help senior management quantify the impact that potential adverse events pose to our portfolios and OCBC Group earnings. The results are considered in business strategy formulation, capital adequacy assessment and risk limits setting.
- **Independent Review** – Internal Audit conducts risk-based internal audits to provide independent assurance that our risk management systems as well as control and governance processes are effective and comply with both regulatory requirements and internal rules and standards. Internal Audit also evaluates the overall risk awareness, aptitude and attitude of the Management in effecting the risk and control measures through a Management Control Oversight Rating (“MCOR”).

RISK GOVERNANCE AND ORGANISATION

At OCBC (M) Group, the Board establishes the Group's risk appetite and risk management principles. The Risk Management Committee ("RMC") is the principal Board committee that oversees the Group's risk management with the following key responsibilities:

- It sets the Group's overall risk management philosophy ensuring it is in line with the overall corporate strategy as approved by the Board.
- Reviews risk disclosure policy and risk management principles for the approval of the Board.
- Oversees the Group's risk management systems for identifying, measuring, monitoring, controlling and reporting risk on a group-wide basis and ensuring the adequacy of risk management practices.
- Approves risk management frameworks, major risk policies and material risk models.

The RMC is supported by the Group Risk Management Division ("GRM"), which is headed by the Country Chief Risk Officer ("Country CRO"). GRM is an independent risk and control oversight function that supports the Group's business development within a prudent, consistent and effective risk management framework and governance structure. GRM also establishes relevant risk management frameworks, policies and procedures, risk measurements and methodologies. Various risk reports, including key stress test results and action plans, are submitted regularly to senior management, the RMC and the Board to apprise them of the Group's risk profile.

GRM also reviews and monitors the Group's risk profiles and portfolio concentrations and highlights any significant vulnerabilities and risk issues to the respective risk management committees. Our risk management and reporting systems are designed to ensure that risks are comprehensively identified and evaluated to support risk decisions.

The independence of risk management from business functions ensures that we achieve the necessary balance between risk-taking and return considerations. The compensation of risk officers is also determined independent of business units and reviewed by the Remuneration Committee to ensure it remains market-competitive.

Senior management actively manages risks through various risk management committees at OCBC Group level such as the Credit Risk Management Committee¹ and the Market Risk Management Committee, as well as various risk management committees at OCBC (M) Group level such as the Asset and Liability Management Committee and the Operational Risk Management Committee. Both risk-taking and risk control units are represented in these committees, emphasising shared risk management responsibilities.

All new products and services are governed by a New Product Approval Process ("NPAP") managed by GRM and approved by the New Product Approval Committee ("NPAC"). This process provides a platform to ensure that all risks associated with new

product or market initiatives are comprehensively identified, assessed, managed and mitigated before market introduction.

¹ 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 REQUIREMENTS

The Group has implemented the Bank Negara Malaysia ("BNM") Risk-Weighted Capital Adequacy Framework ("RWCAF") for banks incorporated in Malaysia, including enhanced quality of regulatory capital base under Basel III. As part of enhanced public disclosures on risk profile and capital adequacy, the Group has made additional disclosures since 2010. Please refer to the OCBC (M) Group Basel II Pillar 3 Market Disclosure for more information.

For credit risk, the Group has adopted the Foundation Internal Ratings-Based ("F-IRB") approach and supervisory slotting criteria to calculate credit risk-weighted assets for major wholesale portfolios, and the Advanced Internal Ratings-Based ("A-IRB") approach for major consumer and small business lending portfolios. Other credit portfolios are on the Standardised Approach ("SA"). 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. Risk weights for market risk assets are specified according to the instrument category, maturity period, credit quality grade, as well as other factors and applied to the corresponding notional amount as prescribed under BNM. For operational risk, the Group has adopted the Standardised Approach while its Islamic subsidiary, OCBC Al-Amin, is on the Basic Indicator Approach ("BIA"). Operational risk-weighted assets are derived by applying specified factors to the annual gross income for the prescribed business lines (SA) or a fixed percentage of positive annual gross income over the previous three years (BIA) in accordance with regulatory guidelines.

The Group conducts the Internal Capital Adequacy Assessment Process ("ICAAP") assessment at least annually to evaluate if the Group is able to maintain sound capital levels after considering business plans and material risks under both base case and severe stress scenarios. Management actions are proposed where necessary to ensure that the Group remains prudently managed.

Implementing the Basel framework is an integral part of our efforts to refine and strengthen our risk management. We closely follow on-going industry and regulatory developments, including higher liquidity and capital requirements.

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 its contractual obligations. As our primary business is commercial banking, the Group is exposed to credit risks from our lending activities. Trading and investment banking activities, such as trading of foreign exchange, derivatives, debt securities, commodities, securities underwriting, and settlement of transactions, also expose the Group to counterparty and issuer credit risks. For derivative transactions, the total credit exposure is quantified by the transactions' current positive mark-to-market value plus an appropriate add-on factor for potential future exposure.

Credit Risk Management Oversight and Organisation

The Credit Risk Management Committee (“CRMC”) is the senior management group that supports the RMC and Country Chief Executive Officer (“CEO”) in managing credit risk, including reshaping the credit portfolios. It reviews the credit profile of material portfolios by business segments to ensure that credit risk taking is aligned with the respective business strategy and consistent with our risk appetite. The CRMC also recommends and monitors exposure undertaken against risk limits and highlights any material risk issues to the RMC and CEO. It also oversees compliance with the risk management framework and policies and the effectiveness of infrastructure, methodologies and systems.

Credit Risk Management (“CRM”) departments ensure the execution of the credit risk management framework, policies and procedures. These departments also independently manage credit risk to ensure adequacy of risk-returns within our risk appetite, customer targets, limits and risk standards. Dedicated risk functions are responsible for portfolio risk monitoring, risk measurement methodology, risk reporting, and remedial management.

Regular risk reports are provided to the CRMC, CEO, RMC and the Board in a timely, objective, and transparent manner for review. These reports include detailed credit exposures, credit migration, expected losses, and risk concentrations by business portfolio. Regular stress tests and portfolio reviews are conducted to assess the potential impact of emerging risk on our credit exposures, including interactions among credit, market and liquidity events (where appropriate). The results of the stress tests and portfolio reviews are factored as necessary into the adjustment and refinement of risk-taking strategies and credit limits to remain within our risk appetite.

Credit Risk Management Approach

OCBC's credit risk management framework encapsulates the complete cycle of credit risk management. It covers the identification, assessment, measurement, monitoring as well as the control and mitigation of credit risks. It also articulates the importance of proactive credit risk management.

The Group seeks to undertake credit risks that meet its target market and risk acceptance criteria, lending parameters and risk-return expectations for sustainable performance. As Fair Dealing underpins our commitment to building long-term relationships with our customers, complex product are sold to them only after clearing suitability and appropriateness assessments. In addition to effective risk management practices, the sound judgement of our experienced credit officers is also key to our successful risk management.

The Group has in place a responsible financing framework that sets out its overall approach towards the management of Environmental, Social and Governance (“ESG”) risks in our lending activities. This framework aims to fully integrate ESG considerations into our credit and risk evaluation process in a more structured and systematic manner. It is supported by our responsible financing policy and relevant sectorial policies that outline the criteria and guidelines for the ESG assessment of clients and transactions. Transactions with high ESG or reputational risk are escalated to the Reputational Risk Review Group for review and clearance. Periodic ESG-related reporting is made to the BRMC and CEO on the progress of our responsible financing implementation. Please refer to the Notes to the Financial Statements for more information on Responsible Financing.

Lending to Consumers and Small Businesses

Credit risks for consumer and small businesses are managed on a portfolio basis under credit programmes such as mortgages, credit cards, unsecured loans, commercial property loans, and business term loans. Credit extended under these programmes should fall within the portfolio and transaction limits, defined target markets, stipulated lending criteria and acceptable collateral as well as advance ratios. Systems and processes such as source identification of credit origination and independent verification of documentation are used to prevent fraud. The performance of the portfolios is closely monitored on a monthly basis using management information system (“MIS”) analytics. Application models are also used in the credit decision process for most products to enable objective, consistent and fast decisions. Behavioural models are used for early identification of potential problem loans.

Lending to Corporate and Institutional Customers

Credit extended to corporate and institutional customers are individually assessed, risk rated and approved by experienced credit officers. The officers identify and assess the credit risks of these customers, including any customer group’s interdependencies, management quality, ESG practices as well as business, financial and competitive profiles against industry and economic threats. Collaterals and other credit support are also used to mitigate credit risks. Credit extensions are guided by pre-defined target market and risk acceptance criteria. To ensure objectivity in credit extension, co-grantor approvals and shared risk ownership are required from both business and credit risk units.

Credit Risk from Investment or Trading Activities

Counterparty credit risks arising from our trading, derivative, and debt securities activities are actively managed to protect against potential losses in replacing a contract if

a counterparty fails to meet its obligations. If on a bilateral basis, in most cases, the transactions will be governed under International Swaps and Derivatives Association (“ISDA”) agreements as well as Credit Support Annexes (“CSAs”) or an equivalent to allow for close-out netting if the counterparty defaults. Credit limits are established for each counterparty based on our assessment of the counterparty’s creditworthiness, the suitability and appropriateness of the product offered and alignment with approved trading mandates and investment strategies. Credit exposures are independently managed through daily limit monitoring, excesses escalation and approval, and timely risk reporting. We also have an established policy and process to manage wrong-way risk which can occur when the credit exposure to a counterparty is adversely correlated with the credit quality of the counterparty.

Internal Credit Rating Models

Internal credit rating models are an integral part of the Group’s credit risk management, credit decision-making process, and capital assessment. These internal rating models and the parameters – probability of default (“PD”), loss given default (“LGD”), and exposure at default (“EAD”) – are factors used in limit setting, credit approval, portfolio monitoring and reporting, remedial management, stress testing, and internal assessment of the capital adequacy and impairment allowances.

Model risk is managed under our model risk management framework and credit rating model framework, to govern the development, validation, application and performance monitoring of rating models. Approval for adoption and continued use of material models rests with the RMC. The models are developed with the active participation of credit experts from risk-taking and risk-control units and subject to independent validation before implementation to ensure that all aspects of the model development process have met internal standards.

On an on-going basis, the models are subject to annual review (or more frequently, where necessary) and independent validation to ensure that they are performing as expected and that the assumptions used in model development remain appropriate. In addition, Internal Audit conducts an annual independent review of the ratings assignment process, the effectiveness of the independent validation and the accuracy of the rating system operation. All rating models are assessed against internal and regulatory requirements and approved by regulators for use in capital assessment.

The Group’s internal risk grades are not explicitly mapped to external credit ratings. Nevertheless, our internal risk grades may correlate to external credit 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 Consumer and Small Business Portfolios

The Group has adopted the A-IRB approach for major consumer portfolios, including residential mortgages, credit cards and 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 key inputs to the PD models. Product, collateral, and geographical characteristics are major factors used in the LGD and EAD models. The PD models are calibrated to the expected long-term average one-year default rate over an economic cycle, while the LGD models are calibrated to reflect the economic loss under downturn conditions.

F-IRB for Major Wholesale Portfolios

The Group's major wholesale portfolios, namely bank, non-bank financial institution, corporate real estate (including income-producing real estate specialised lending) and general corporate, are on the F-IRB approach. 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 use both 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 with low defaults following inputs from internal credit experts. The models also comply with the regulatory criteria for parameterisation. For other specialised lending portfolios namely Project Finance, Object Finance and Commodities Finance, risk grades derived from internal models are mapped to the five supervisory slotting categories as prescribed in BNM RWCAF. The risk weights prescribed for these slotting categories are used to determine the regulatory capital requirements.

Standardised Approach for Other Portfolios

Other credit portfolios, such as exposures to sovereigns and Islamic personal financing are under the Standardised Approach. These portfolios will be assessed for progressive migration to the internal ratings-based approaches. Regulatory prescribed risk weights based on asset class and external ratings from approved credit rating agencies, where available, are used to determine 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

Credit risk assessments are based on the credit worthiness of the borrower, source of repayment and debt servicing ability. To mitigate credit risk, the Group accepts collateral and credit protection such as cash, real estate, marketable securities, inventories and trade receivables and standby letters of credits. We have policies in place to set out the criteria for collateral to be recognised as eligible credit risk mitigants including legal certainty, priority, correlation, marketability, liquidity and counterparty risk of the protection provider. The value of collateral is prudently assessed on a regular basis, and valuations are performed by independent qualified appraisers. Appropriate haircuts are applied to the market value of collaterals, reflecting the underlying nature of the collateral, quality, liquidity and volatility of the collateral. The Group also accepts guarantees from individuals, corporates, and institutions as a form of support.

To manage counterparty credit risk, eligible financial collaterals may be taken to partially or fully cover mark-to-market exposures on outstanding positions, with a haircut to cover potential adverse market volatility. Collateral agreements, typically covered under market standard documentation such as ISDA, include a minimum threshold amount where additional collateral is to be posted by either party if the mark-to-market exposures exceed an agreed threshold. The credit risk associated with contractual obligations is reduced by the netting agreements to the extent that if an event of default occurs, all amounts with the counterparty are settled on a net basis. Agreements may also contain rating triggers where additional collateral posting is required in the event of a rating downgrade.

Managing Credit Risk Concentrations

Credit risk concentrations may arise from lending to single borrower, a group of connected borrowers, or diverse groups of borrowers affected by similar economic or market conditions. Where appropriate, limits are set and monitored to control concentrations by borrower, group of connected borrowers, product and industry. These limits are aligned with the Group's risk appetite, business strategy, capacity and expertise. Impact on earnings and capital are also considered in limits setting.

While we are steadily diversifying our exposure, we have significant exposure to the real estate market in Malaysia. Dedicated specialist real estate units manage this risk by focusing on client selection, collateral quality, project viability, collateral quality, and real estate cycle trends. Regular stress tests are also conducted to identify potential vulnerabilities on the real estate 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 and financing.

Remedial Management

The Group has an established process to constantly assess our portfolios to detect potential problem credits at an early stage. As we value customer relationships, we understand that some customers face temporary financial distress and prefer to work closely with them at the onset of their difficulties. We recognise the opportunity to promote customer loyalty and retention in such instances, even as we enforce strict discipline and place a priority on remedial management to minimise credit loss.

The Group classifies its credit exposures accordingly to the borrowers' ability to repay their financial obligations on time and in full from their normal sources of income. Credit exposures are categorised as "Pass" or "Special Mention", while impaired loans ("ILs") are categorised as "Substandard", "Doubtful" or "Loss". Upgrading of ILs to performing loan status can only be done when there is established trend of credit improvement.

Credit exposures are classified as restructured assets when the Bank has granted concessions or restructured repayment terms to borrowers who are facing difficulties in meeting the original repayment schedules. A restructured credit exposure is classified into impaired loans grades based on the assessment of the borrower's financial condition and its ability to repay under the restructured terms. Such a credit exposure must comply fully with the restructured terms before it can be restored to performing loan status.

The Group has dedicated remedial management units to manage these problem credits for the wholesale portfolios. For the retail portfolios, appropriate risk-based and time-based collection strategies are developed to maximise recoveries. The Group also uses analytical data such as delinquency buckets and adverse status tags for delinquent retail loans to constantly fine-tune and prioritise its collection efforts.

Impairment Allowances for Loans, Advances and Financing

The Group maintains loan allowances that are sufficient to absorb credit losses inherent in its loans, advances and financing portfolio. Total loan and financing loss allowance comprises individual impairment allowances for impaired loans and collective impairment allowance for all performing loans, advances and financing to cover expected losses that are not yet evident.

Individual impairment allowances for credit losses are evaluated either individually or collectively for a portfolio. The amount of individual impairment allowance for an individual credit exposure is determined by ascertaining the difference between the present value of future recoverable cash flows of the impaired loan and the carrying value of the loan. For homogenous unsecured retail loans such as credit card receivables, individual impairment allowances are collectively assessed, taking into account historical loss experience of such loans. Loans are written off against impairment after taking into consideration the realisable value of collateral, if any, when in the judgement of the management, there is no prospect of recovery.

Collective impairment allowance is provided based on our credit experience, historical loss rates and judgement for estimated inherent losses that may exist but may not been identified for any specific financial asset.

Impairment allowance will be guided by Malaysian Financial Reporting Standards ("MFRS") 9 with effect from 1 January 2018. MFRS 9 replaces MFRS 139 and introduces new requirements for classification and measurement of financial assets and financial liabilities, impairment of financial assets and hedge accounting.

Ceasing of Interest Accrual on Loans, Advances and Financing

When a loan is classified as impaired, 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 collection of such interest income. Once a loan, advance or financing has been written down against impairment allowance, interest/finance income is

recognised using the interest/profit rate used to discount the future cash flows for the purpose of measuring the impairment allowance.

Collateral Held Against Impaired Loans

The Group's impaired loans are largely secured by real estate in Malaysia. The realisable value of the collateral is used to determine the adequacy of the collateral coverage. Cross collateralisation will only apply when exposures are supported by proper legal documentation.

MARKET RISK MANAGEMENT

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

Market risk limits and risk management strategies are established in line with the Group's risk appetite and business strategies and take 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 group that supports the RMC and CEO in managing market risk. ALCO establishes the 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 chaired by the CEO and Corporate Treasury is the ALCO Secretariat. Market Risk Management ("MRM") 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 proactively managing risk within their approved trading strategies and investment mandates, while MRM acts as the independent monitoring unit to ensure sound governance. The key risk management activities of identification, measurement, monitoring, control, and reporting are regularly reviewed to ensure effective risk management under prevailing market conditions.

Market Risk Identification

Risk identification is addressed via the Group's internal NPAP at product inception. Market risks are also identified by our risk managers from their on-going interactions with the business units.

Market Risk Measurements

Value-At-Risk

Value-at-risk ("VaR"), as a key market risk measure for the Group's trading activities, is a component of aggregate market risk appetite. VaR is measured and monitored by its individual market risk components, namely interest rate risk, foreign exchange risk, equity risk and credit spread risk, as well as at the consolidated level. The VaR model is based on a historical simulation at a 99% confidence level and over a one-day holding period. As VaR is a statistical measure based on historical market fluctuations, past changes in market risk factors may not accurately predict forward-looking market conditions all the time. Under the defined confidence threshold, losses on a single trading day may exceed VaR, on average, once every 100 days.

Other Risk Measures

Apart from VaR, there are numerous other market risk measures used in monitoring the market risk of the Treasury positions. 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 important interest rate risk measure monitored on a daily basis. FX Net Open Position ("NOP") measures the exposure to each currency while present value of a basis point increase in Credit Spreads ("CS01") measures the change in value of credit sensitive exposures resulting from one basis point increase in the credit spread. Risk measures used also include FX basis limits, notional limits and derivative greeks limits for specific exposure types.

Stress Testing and Scenario Analyses

The Group performs stress testing and scenario analysis to further assess the 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 and risk profile as well as prevailing and forecast economic conditions. This analysis determines if the potential losses from such extreme market conditions are within the Group's risk tolerance.

Risk Monitoring and Control

Limits

Only authorised trading activities for approved products may be undertaken by the various trading units. All trading risk positions are monitored by independent support units on a daily basis against the approved and allocated market risk limits. Trading activities are conducted within approved mandate and dynamically hedged to ensure compliance with market risk limits. High utilisations alert are sent to traders and head of

desk when utilisations exceeds 70%. Limit excesses and triggers are promptly reported and escalated to senior management and committees as per the market risk limit control policy.

Model Validation

Model validation is also an integral part of the Group's risk control process. Financial models are used to value and measure the risk of the financial instruments. These models are governed by the Model Risk Management Framework which ensures that the models used are fit for their intended purpose through internal verification and assessment. Market rates used for risk measurements and valuations are sourced independently, thereby adding further to the integrity of the trading P&L and risk measures generated by the financial models used in managing market risk exposures.

Back-Testing

To ensure the continued integrity of the VaR model, the VaR model is regularly back-tested against actual daily trading P&Ls and theoretical P&Ls. Back-test exceptions are promptly investigated and results are escalated to senior management.

System and Infrastructure Upgrade

Robust internal control processes and automated systems have been designed and implemented to support our market risk management approach. These processes and systems are also reviewed regularly and enhanced to ensure effectiveness in supporting the increasingly complex Treasury instruments.

ASSET LIABILITY MANAGEMENT

Asset liability management is the strategic management of the Group's balance sheet structure and liquidity requirements, covering liquidity sourcing and diversification and interest rate management.

Asset Liability Management Oversight and Organisation

ALCO is the senior management group that is responsible for the management of the Group's balance sheet and liquidity risks. The ALCO is chaired by the CEO and includes senior management from the business, risk and support units.

Asset Liability Management Approach

The asset liability management framework comprises liquidity risk management, and 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 and to undertake new transactions.

The Group's liquidity management process involves establishing liquidity management policies, limits and regular monitoring against them. The Group also performs short-term liquidity stress tests based on institution specific and market-wide liquidity stress scenarios. The results of the stress tests are used to adjust liquidity risk management strategies and to develop effective contingency funding plans.

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 performed and the results are taken into account in the risk management processes. Indicators such as liquidity and deposit concentration ratios are used to maintain an optimal funding mix and asset composition. Funding strategies are established to provide effective diversification and stability in funding sources across tenors and products. In addition, liquid assets in excess of regulatory requirements are maintained for contingency use in the event of a liquidity crisis. These liquid assets comprise statutory reserve, eligible securities as well as marketable shares and debt securities.

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 market interest rates. The material sources of interest rate risk are gap risk, basis risk and optionality risk. A range of techniques are employed to measure these risks from an earnings and economic value perspective. One method involves the simulation of the impact of a variety of interest rate scenarios on the Group's net interest income and the economic value of equity ("EVE"). Other measures include interest rate sensitivity measures such as PV01 as well as repricing gap profile analysis. Triggers are set based on the Group's strategy and risk appetite. The results are used to adjust interest rate risk management strategies, policies and positions.

Limits are established to manage interest rate exposures and reviewed regularly to ensure they remain relevant in the context of the prevailing external environment. Control systems are in place to monitor the risk 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 management enables us to fulfil our fiduciary duties, comply with legal and regulatory requirements and mitigate other risk factors. This will also help manage any reputational risks impact.

The Group's operational risk management aims to manage both expected and unexpected losses, including those caused by catastrophic events. The twin objectives act as parameters to manage our risk as we pursue new business opportunities.

Operational Risk Management Oversight and Organisation

The Operational Risk Management Committee (“ORC”) is the senior management group that supports the RMC and CEO in managing operational risk. It supports the Group’s business strategy by ensuring that the operational risk is within acceptable tolerance levels and approved risk appetites set by the Board in supporting the Group’s business strategy. ORC also ensures that the Group’s operational risk management programmes are appropriate and effective.

The Operational Risk Management (“ORM”) department establishes the ORM framework, supporting policies and techniques. It also independently oversees operational risk monitoring and controls that reside within business, products and process owners. The ORM programmes are actively implemented through the respective Operational Risk Partners (“ORP”) or managers in the business units and subsidiaries. To raise competency levels in managing operational risk, all ORPs or managers are put through an industry recognised accreditation programme.

Operational Risk Management Approach

The Group adopts an operational risk management framework that ensures operational risks are properly identified, managed, monitored, mitigated, and reported in a structured and consistent manner. The framework is underpinned by strong risk management and control culture.

Each business unit undertakes self-assessments on a regular basis by assessing the robustness of its risk and control environment, including compliance with all legal and regulatory requirements. Self-assessment declarations are subject to risk-based independent reviews. Performance metrics are also used to detect early warning signals and to drive appropriate management actions before the risks result in material losses. To enhance controls over trading activities and data loss prevention, we have specific risk units to perform end-to-end surveillance over these areas.

Senior management attests annually to the CEO, RMC and Board Audit Committee, on the adequacy and effectiveness of the internal controls and risk management systems as well as key control deficiencies and accompanying remedial plans. Operational risk data (e.g. operational risk events and self-assessments) are analysed and reported regularly to senior management.

To mitigate operational losses, insurance programmes are in place to protect the Bank and its employees against adverse events. These programmes cover losses relating to crime, cyber risks, professional indemnity, directors’ and officers’ liability, property damage and public liability.

In addition, the subject specific key risks that the Group focuses on include but are not limited to:

Outsourcing Risk Management

The Group recognises the risks associated with outsourcing arrangements. As part of the Group's outsourcing risk management programme, we have a multi-disciplinary outsourcing management group to manage outsourcing risks in a structured, systematic and consistent manner.

Physical and People Security Risk Management

The Group has a programme to ensure that physical and security risk to people and assets are adequately addressed. This includes having a unit to actively monitor and scan global events that may pose a risk to OCBC locations, people and assets. This unit provides advisory and response procedures to better prepare the Bank and its employees against risk events. To mitigate physical security risks, we are enhancing the access control management of our buildings.

Business Continuity Risk Management

The Group has a comprehensive and robust business continuity management programme that aims to minimise the interruption to essential business activities and services during a crisis. This is achieved through the implementation of robust recovery strategies and business recovery plans which are reviewed and tested annually. Senior management also provides an annual attestation to the RMC which includes a measurement of the programme's maturity and the extent of alignment to BNM guidelines as well as a declaration of acceptable residual risk.

Fraud Risk Management

The Group's fraud risk management and whistle-blowing programmes aim to prevent and detect fraud or misconduct. Fraud incident reports - including root cause analysis, extent of damage, remedial actions and recovery steps of major incidents - are regularly reported to the ORC and RMC. We have a Fraud Surveillance System to detect suspicious transactions. The system uses machine learning through continuous assessment of individual customers' transaction patterns, and the setting of standard deviations for monitored transactions. Internal Audit independently reviews all fraud and whistle-blowing cases, and reports the findings to the Board Audit Committee.

Reputational Risk Management

Reputational risk is the current and prospective risk to earnings and capital arising from adverse perception of the Group's image among customers, counterparties, shareholders, investors and regulators. We have a reputational risk management policy which focuses on understanding and managing our responsibilities towards our different stakeholders as well as 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 from managing funds or providing other agency 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.

Legal and Regulatory Risk Management

The Group holds itself to high standards when conducting business and at all times observes and complies with applicable laws, rules and standards. The Group has an established compliance risk programme which defines the required environment and organisational components for managing the risk in a structured, systematic and consistent manner. Each business unit is responsible for having adequate and effective controls to manage both regulatory and legal risks. Senior management provides the CEO and Board of Directors with an annual Regulatory Compliance Certification regarding the state of regulatory compliance.

Technology, Information and Cyber Security Risk Management

The Group adopts a holistic approach to ensure that technology, information and cyber risks are properly assessed, monitored, mitigated and reported. Appropriate controls are in place to ensure confidentiality, integrity, and availability of our information assets.

The Group raises the staff awareness on cyber information and vigilance against cyber risk through regular email reminders, training and campaigns that include the use of test emails.

Anti-Money Laundering / Countering the Financing of Terrorism Risk Management

The Group has a structured framework and programme for combating money laundering and countering the financing of terrorism that is implemented across the organisation. This incorporates BNM's Guidelines on Anti-Money Laundering and Counter Financing of Terrorism (AML/CFT) – Banking and Deposit-Taking Institutions (Sector 1) and is in line with the principles or guidelines set by international organisations, such as the Basel Committee and Wolfsberg Group.

The Group's programme is aimed at managing and mitigating potential exposure to existing and emerging money laundering and terrorism financing ("ML/TF") risks emanating from the various customer segments, products and services and delivery channels. It includes observance of sanctions required by BNM. In this regard, we have implemented appropriate policies and procedures to conduct customer due diligence to know our customers as well as transaction monitoring capabilities to detect unusual or suspicious transactions.

The Group's anti-money laundering and countering the financing of terrorism ("AML/CFT") programme is subject to internal and external audits as well as regulatory inspections. The senior management and the Board have oversight of the programme, which is reviewed regularly to ensure that it remains robust and relevant with the

evolving regulatory landscape and operating environment. They are kept apprised on enhancements to the programme.

The Group regularly invests in the systems, upgrading or replacing them from time to time to strengthen its capabilities in customer risk management and transactions monitoring. Given the dynamic and complex evolution of money laundering tactics, we have identified new fintech solutions using machine learning and artificial intelligence to supplement and optimise our existing customer transaction monitoring system. These solutions will enable the Bank to more accurately detect suspicious transactions and reduce the high rate of false positive alerts often generated by rules-based monitoring systems.

The Group recognises that its employees play an integral role in our AML/CFT efforts and has emphasised the importance of staying vigilant to ML/TF and sanctions risks to its business and network. To ensure that our employees understand these risks, they undergo basic training when they join the bank and regular refresher training thereafter. The Group also provides specific training to enable relevant employees to carry out their respective roles and to keep abreast of developments in the financial industry. The Board and senior management are trained regularly to enable them to oversee our AML/CFT programme. The training encompasses AML/CFT and sanctions regulations, case studies depicting local or transnational criminal activities and new or developing typologies.

SHARIAH GOVERNANCE

Overview

OCBC Al-Amin Bank Berhad (“OABB”) is governed by the Shariah Governance Framework (“SGF”) of BNM, SGF of OABB and Islamic Financial Services Act 2013 (“IFSA”) which, in essence, sets out the governance structure, policies and processes for the Bank’s business, operations and activities. The SGF sets out the guidance to the Board of Directors, Shariah Committee and management, and outlines functions such as Shariah Risk Management, Shariah Review, Shariah Audit and Shariah Research and Secretariat. The SGF is applicable to all employees of OABB and extends to all staff of OCBC Bank and other service providers who are involved in the business and operations of OABB under shared services or outsourcing arrangements.

Shariah Risk Management

Shariah Risk Management is a function to systematically identify, measure, monitor and control Shariah non-compliance risk to mitigate any possibility of non-compliance. It forms a part of the Islamic bank’s integrated risk management framework. Shariah non-compliance risks arises from non-compliance events attributed by an Islamic Bank’s failure to comply with the Shariah rules and principles as determined by the Shariah Advisory Council (“SAC”) of Bank Negara Malaysia, Shariah Advisory Council of the Securities Commission and Shariah Committee of Islamic Banks. As such, OABB shall at all times ensure its operations, business, affairs and activities are in compliance with Shariah. Any failure may have adverse impact to the bank’s financial position and reputation.

The key components of OABB's Shariah Risk Management process are as follows:

- Identify, measure, control and monitor – Facilitating the process of identifying, measuring, controlling and monitoring Shariah non-compliance risks inherent in OABB's business, operations and activities;
- Policies and Guidelines – Formulating and recommending appropriate Shariah risk management policies and guidelines; and
- Risk awareness – Developing and implementing processes for Shariah non-compliance awareness in OABB.

All potential Shariah non-compliance events are submitted to the bank's Shariah Committee for their deliberation and decision. All Actual Shariah Non-Compliance Events ("SNCEs") are to be reported to BNM within the required timeframe.

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 2017)

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 related information in the Notes to the Financial Statements.

Exposures and Risk Weighted Assets (RWA) by Portfolio

	EAD ¹ RM million	RWA RM million
Credit Risk		
Standardised Approach		
Corporate	28	28
Sovereign & Central Bank	14,835	63
Retail	453	465
Equity	109	109
Securitisation	-	-
Others	590	435
Total Standardised	16,015	1,100
Internal Ratings-Based (IRB) Approach		
Foundation IRB		
Corporate	34,196	29,143
Bank	6,308	1,301
Public Sector Entity	334	81
Advanced IRB		
Residential Mortgage	31,625	4,123
Qualifying Revolving Retail	1,636	536
Other Retail - Small Business	10,749	3,897
Specialised Lending under Supervisory Slotting Criteria	43	53
Total IRB	84,891	39,134
Total Credit Risk	100,906	40,234
Market Risk		
Standardised Approach		937
Amount Absorbed by PSIA		-
Total Market Risk		937
Operational Risk		
Standardised Approach ²		4,580
Total Operational Risk		4,580
Total RWA		45,751

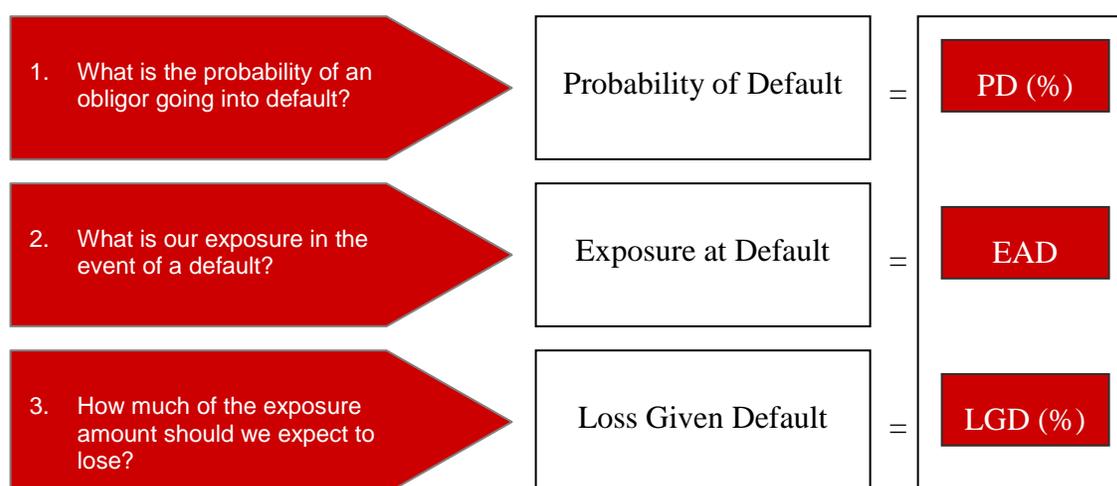
Note:

¹ EAD refers to exposure at default after credit risk mitigation

² OCBC Bank (M) Berhad Group and OCBC Bank (M) Berhad have adopted the Standardised Approach, with effect from 2012, while OCBC Al-Amin Bank Berhad is on the Basic Indicator Approach.

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 central bank. Rated exposures relate mainly to sovereign and central bank while unrated exposures relate mainly to Islamic personal financing and other assets.

Risk Weight	EAD RM million
0%	14,826
20% - 35%	61
50% - 90%	146
100%	827
>100%	46
Total	15,906
Rated exposures	14,835
Unrated exposures	1,071

Note: Excludes Equity

Equity Exposures under Standardised Approach

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

Risk Weight	EAD RM million
100%	109
Total	109

Securitisation Exposures

There is no securitization and re-securitisation exposure in the banking and trading books as at 31 December 2017.

Specialised Lending Exposures under Supervisory Slotting Criteria

Specialised lending exposures include project and object financing.

	EAD RM million	Average Risk Weight
Strong	-	-
Good	-	-
Satisfactory	43	122%
Weak	-	-
Default	-	NA
Total	43	122%

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

Corporate exposures are mainly exposures to corporate and institutional customers, major non-bank financial institutions as well as financing of income-producing real estate. 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%	599	18%
> 0.05 to 0.5%	12,023	49%
> 0.5 to 2.5%	13,780	92%
> 2.5 to 9%	6,180	140%
> 9%	988	188%
Default	626	NA
Total	34,196	85%

Bank Exposures

PD Range	EAD RM million	Average Risk Weight
up to 0.05%	3,838	13%
> 0.05 to 0.5%	2,361	31%
> 0.5 to 2.5%	109	61%
> 2.5 to 9%	#	153%
> 9%	#	194%
Default	-	NA
Total	6,308	21%

Public Sector Entity Exposures

PD Range	EAD RM million	Average Risk Weight
up to 0.05%	318	23%
> 0.05 to 0.5%	16	48%
> 0.5 to 2.5%	-	-
> 2.5 to 9%	-	-
> 9%	-	-
Default	-	NA
Total	334	24%

"#" 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

PD Range	EAD RM million	Undrawn Commitment RM million	EAD Weighted Average	
			LGD	Risk Weight
up to 0.5%	23,021	2,020	11%	6%
> 0.5 to 3%	5,511	222	12%	17%
> 3 to 10%	1,107	21	12%	47%
> 10%	1,439	29	12%	68%
100%	547	24	19%	40%
Total	31,625	2,316	11%	13%

Qualifying Revolving Retail Exposures

PD Range	EAD RM million	Undrawn Commitment RM million	EAD Weighted Average	
			LGD	Risk Weight
up to 0.5%	1,195	1,828	77%	9%
> 0.5 to 3%	243	188	77%	50%
> 3 to 10%	110	51	80%	128%
> 10%	83	16	75%	198%
100%	5	-	75%	0%
Total	1,636	2,083	77%	33%

Other Retail - Small Business Exposures

PD Range	EAD RM million	Undrawn Commitment RM million	EAD Weighted Average	
			LGD	Risk Weight
up to 0.5%	7,037	1,628	32%	17%
> 0.5 to 3%	2,019	107	39%	47%
> 3 to 10%	501	39	37%	60%
> 10%	832	7	41%	91%
100%	360	6	44%	185%
Total	10,749	1,787	35%	36%

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

Actual loss refers to net impairment loss allowance and direct write-off to the statement of profit or loss 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 12 months ended 31 December 2017 RM million	Regulatory Expected Loss (Non-defaulted) as at 31 December 2016 RM million
Corporate	171	241
Bank	-	3
Public Sector Entities	-	#
Other Retail - Small Business	28	154
Retail	29	102
Total	228	500

"#" represents amount less than RM0.5 million

Exposures Covered by Credit Risk Mitigation

	Eligible Financial Collateral RM million	Other Eligible Collateral RM million	Amount by which credit exposures have been reduced by eligible credit protection RM million
Standardised Approach			
Corporate	4	-	-
Sovereign & Central Bank	-	-	-
Retail	33	-	-
Others	#	-	-
Total	37	-	-
Foundation IRB Approach			
Corporate	1,196	10,668	80
Public Sector Entities	-	-	50
Bank	338	-	-
Total	1,534	10,668	130

Note:

- Not all forms of collateral or credit risk mitigation are included for regulatory capital calculations.
 - Does not include collateral for exposures under Advanced IRB Approach and Specialised Lending.
- "#" represents amount less than RM0.5 million

Counterparty Credit Risk Exposures

	RM million
Replacement Cost	790
Potential Future Exposure	1,866
Less: Effects of Netting	-
EAD under Current Exposure Method	2,656
Analysed by type:	
Foreign Exchange Contracts	1,646
Interest Rate Contracts	960
Equity Contracts	13
Gold and Precious Metals Contracts	-
Other Commodities Contracts	13
Credit Derivative Contracts	24
Less: Eligible Financial Collateral	338
Net Derivatives Credit Exposure	2,318

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

Credit Derivatives

	Notional Amount RM million	
	Bought	Sold
Credit Derivatives Swap		
for own credit portfolio	-	-
for intermediation activities	237	237
Total	237	237

Note: Credit derivatives for own credit portfolio include trading portfolio and hedges, if any.

MARKET RISK

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

	<u>Gross Exposure</u>		<u>Risk Weighted</u>	<u>Min. Capital</u>
	<u>Long Position</u>	<u>Short Position</u>	<u>Assets</u>	<u>Requirement</u>
	RM million	RM million	RM million	RM million
Interest Rate Risk	22,725	21,348	704	56
Foreign Currency Risk	13	175	175	14
Equity Risk	-	-	-	-
Commodity Risk	27	24	26	2
Inventory Risk	-	-	-	-
Options Risk	1	1	32	3
Total	22,766	21,548	937	75

EQUITY EXPOSURES

Equity exposures comprised investments in quoted and unquoted equity instruments. There is no exposure to quoted equity as at 31 December 2017.

Disclosures on accounting policy and fair value measurement of equity securities are in Notes to the Financial Statements 2C(b)(iii), 1(a)(ii) and 41(A)(i)(c).

Carrying Value of Equity Exposures

	RM million
Quoted equity exposure - AFS	-
Unquoted equity exposure - AFS	109
Quoted equity exposure - Associates	-
Unquoted equity exposure - Associates	-
Total	109

Realised and Unrealised Gains and Losses

	RM million
Gains/(losses) from disposal of AFS equities	-
Unrealised gains/(losses) included in fair value reserve	95
Total	95

Interest Rate Risk in Banking Book

Based on a 50 basis point parallel rise in yield curves on the OCBC (M) Group's exposure to major currency i.e. Malaysian Ringgit, net interest income is estimated to increase by MYR132.8 million, or approximately +9.4% of reported net interest income. The corresponding impact from a 50 basis point decrease is an estimated reduction of MYR134.8 million in net interest income, or approximately -9.6% of reported net interest income.