Risk Management

RISK EXPOSURE AND RISK MANAGEMENT PRACTICE

The main aim of OCBC Group's risk management practice is to protect the Group against extraordinary or exceptional losses that could arise from taking risks beyond its risk appetite. The Group's philosophy on risk management is that all risks must be properly understood, monitored, controlled and managed. In addition, risk management processes must be closely aligned to the Group's business strategy, to enable the Group to maximise its risk-adjusted return on capital.

The Group's primary business activity is commercial banking, which is essentially a customer-driven activity where the substantial risk is the credit risks of its corporate, institutional and retail customers. To a lesser extent, commercial banking activities also expose the Group to market risk arising from re-pricing, maturity and currency mismatches of assets and liabilities. These mismatches give rise to interest rate, liquidity and foreign exchange risks.

Trading and investment banking activities, which include sales and trading in money market, foreign exchange and other treasury products and the underwriting of equities and debt instruments as well as stockbroking and asset management, are relatively less significant. However, these activities also expose the Group to credit risks and market risks, including interest rate, currency and equity risks.

In the course of conducting its businesses, the Group handles a large number of financial transactions. It is inherently exposed to operational risks arising from failure of internal processes and systems, deficiencies in people and management, or operational failure arising from external events. The provision of financial advisory services to customers for wealth management products, including the sale of unit trusts and life insurance, also exposes the Group to operational and fiduciary risks arising from the failure to meet the general standards expected of such financial advisory activities.

The Group, through its subsidiary, Great Eastern Holdings, is engaged in the insurance business and will incur risks inherent in its principal activities of providing financial advisory services and insurance protection such as mortality, morbidity, property and casualty. Insurers under Great Eastern Holdings are required to comply with insurance rules and regulations including investment limits.

RISK ORGANISATION

OCBC Group believes that risk management is most effective when it is a shared responsibility between risk takers and risk controllers, with the Board of Directors providing general oversight. The risk organisation is structured such that there is segregation of duties and reporting lines between risk-taking and risk-controlling units. These principles are applied across the major risk areas, including credit, market and operational risks.

In recent years, OCBC has been building its resources and capabilities in risk management so as to keep pace with business developments. Given that banking products invariably contain a varying mix of risks from different risk categories, the management of risk must be looked at holistically.

The Board Risk Committee is the principal committee that supports the Board in the oversight of credit, market, operational and fiduciary risks and any other category of risks as may be deemed necessary. It is responsible for ensuring effective risk oversight of the Bank and its subsidiaries.

Group Risk Management Division, in supporting the Board Risk Committee and the CEO is staffed with officers dedicated to risk policy setting, risk measurement methodology and model development,and the monitoring of the OCBC Group's risk profiles and concentrations. In the case of credit risk, dedicated officers are also involved in transaction approval and remedial loan management. Besides the Group Risk Management Division, other functions in the Bank that support the risk management framework include Legal and Compliance, Internal Audit, Operations, Finance and the respective business units where risks are taken or generated.

CREDIT RISK MANAGEMENT

The Credit Risk Management Committee ("CRMC") is the principal senior management committee that supports the CEO and the Board in credit risk management oversight. The CRMC reviews and recommends major credit risk policies for the approval of the CEO and/or the Board. It is also responsible for ensuring that sound credit risk methodologies and effective credit risk management processes are established.

The CRMC includes representatives from major business units, where credit risk is generated, as well as independent credit risk controlling units. This joint effort in setting risk policy seeks to ensure understanding of and commitment to the credit risk management process. The CRMC is supported by the Credit Risk Management ("CRM") departments within Group Risk Management Division. Dedicated CRM units perform the roles of developing risk policies, guidelines and procedures and putting in place the monitoring, reporting and control systems.

Credit Approval Process

The foundation of the credit approval structure is a designation process that delegates lending authority to individual credit signers according to their individual credit skills, knowledge, experience, training and track record.

Credit extensions to corporate and institutional customers are generally required to meet pre-defined target markets and risk acceptance criteria. Individual credit signers from the business units make underwriting decisions jointly with those from the credit risk management units. This "co-grantor" approval approach is designed to ensure objectivity in credit extensions.

For the consumer and small business sectors where transactions are numerous and of smaller amounts, loans are underwritten under pre-approved credit programmes. These programmes focus on credit extensions to individual customers with similar characteristics and/or product needs.

The New Product Approval Committee ("NPAC") approves all new products including credit programmes and reviews existing programmes on a regular basis. The representation of key stakeholders from the business, support and risk management units in the membership of the NPAC ensures objectivity, independence, and injection of functional expertise into the decision-making process.

Credit Risk Review

Independent credit risk reviews are conducted across different business units to strengthen the risk oriented credit culture in OCBC. As of December 2004, the first cycle of reviews covering all auditable business banking units in Singapore, Malaysia and International has been completed.

Concurrently, a Consumer Credit Review function was launched in April 2004 and has since completed several audits.

Training programme on credit risk process aims to improve efficiency for the staff in business units. Focus areas in the 2-day workshop include SME lending, early warning recognition and remedial management. Over 600 bank officers in credit related jobs have participated in the workshop, which is repeated quarterly for new hires or in international locations.

Credit Portfolio Management

The Group is continuing to develop credit risk grading models to enable it to better differentiate risks in the various segments of its credit portfolio for better decision making and monitoring of risks. Increased attention has been placed on credit stress testing to assess the credit portfolio's vulnerability to "exceptional but plausible" adverse credit risk events and to measure the sensitivity of the Group's earnings and capital to the associated deterioration in credit quality under the stressed scenarios.

The Group is also continuing to develop a centralised credit risk database to store key credit risk data for the Group to more efficiently monitor its credit portfolios.

In addition, efforts have been intensified towards preparing for the New Basel Capital Accord ("Basel II"). Detailed implementation planning is taking place to ensure that Basel II project will be executed to meet regulatory timelines, scheduled to be effective in 2007.

Country Risk

A country risk framework is in place, covering the assessment and rating of countries, as well as the maximum cross-border transfer risk limit that can be granted to any one country based on its risk rating. Cross-border transfer risk covers all cross-border transactions including onshore non-local currency transactions. Limits are allocated into maturity time-bands and vary according to the risk rating of the country concerned and the political and economic outlook.

Credit Concentration

The Group seeks to spread its risk exposure amongst the growing economic sectors of the major markets in which it operates. Limits are set on specific customer, industry segments and country in order to avoid over-concentration of credit risks. Prudent limits have also been placed on exposures to single customer groups. Industry and country concentration limits are established in relation to the Group's capital.

Special Asset Management Unit

The Special Asset Management unit continues to manage all Non-Performing Loans ("NPLs") due from Business Banking customers within the Group. These NPLs are managed either directly by active account management, or where warranted, through the oversight and supervision of the relevant business units' management. The Special Asset Management unit is target driven, with the objective of efficient NPL reduction and maximising loan recovery. The unit maintains its focus through a systematic loan management process that formulates work plans to achieve timely NPL resolution, and its senior management team is actively involved in all stages of the process to ensure that the agreed plans for NPL resolution are achieved within agreed timeframes.

Loan Classification and Provisioning Policies

Loan classification

The Group classifies its loans in accordance with MAS Notice 612 and internal loan classification policies. Performing loans are categorised as 'Passed' or 'Special Mention', while NPLs are categorised as 'Substandard', 'Doubtful' or 'Loss', based on the following guidelines:

- Passed – Interest and principal payments are fully up-to-date, and orderly repayment and/or timely settlement in the future is without doubt.
- Special Mention – Currently protected but potentially weak. Borrower exhibits some deteriorating trends which, if not addressed or corrected, could jeopardise the timely repayment of interest and principal.
- Substandard – Timely repayment and/or settlement is at risk. Well-defined weakness is evident.
- Doubtful – Full repayment and/or settlement is improbable.
- Loss – The outstanding debt is regarded as uncollectable.

Restructured loans

A restructured loan refers to one where the original contractual terms and conditions have been modified upon mutual agreement between the Bank and the borrower. Where a loan is restructured because a borrower is facing severe financial difficulties and where it is probable that the account will have to be downgraded to non-performing status without the restructuring, the restructured loan will be classified as NPL. Once classified as an NPL, a restructured loan can only be upgraded after a reasonable period (typically six months) of sustained performance under the restructured terms.

Provisioning policies

The provision for estimated losses in the loan book comprises a specific provision against each NPL and a general provision that cannot be specifically applied and reflects the potential risk embodied in the loan portfolio. In determining the level of general provisions, the Group takes into account country conditions, the composition of the portfolio, industry practices and MAS guidelines.

The specific provision against each NPL is based on the individual circumstances of each account after considering:

(a) the underlying business and financial viability of the borrower;
(b) the cash flow sources of the borrower;
(c) the quality and realisable value of the collateral and guarantee supporting the loan; and
(d) the existence of a valid and enforceable legal right of recourse against the borrower.

The specific provision against each NPL must comply with the following minimum amounts as prescribed by the MAS:

Substandard – 10% (on unsecured portion)
Doubtful – 50% (on unsecured portion)
Loss – 100% (on loan outstanding)

Where appropriate, the Group also makes additional specific provisions in excess of the MAS minimum requirements, taking into account the circumstances of each borrower, the collateral values and other relevant considerations.

Write-offs

Write-offs of debts are made when recovery action has been instituted and the loss can be reasonably determined. For unsecured consumer loan programmes, the general policy is to write-off overdue debts after 180 days after the first default.

Ceasing of interest accrual on loans

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

Collateral held against NPLs

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

Property Exposure

The Bank is in compliance with Section 35 of the Banking Act, which limits its exposure to real estate in Singapore to not more than 35% of its total eligible loan assets.

Information on credit exposures by geographical area, business line and industrial classification, and the breakdown of investment and dealing securities by issuer type, are disclosed in Notes 25, 27, 31, 38 and 40 of the Financial Statements and in the Management Discussion and Analysis chapter.

MARKET RISK MANAGEMENT

Market risk is defined as the uncertainty in the future values of the Group's exposures in financial instruments resulting from movements in market factors such as interest rates, equity prices, and foreign exchange rates.

The Market Risk Management Committee ("MRMC") is the principal senior executive group that supports the Board Risk Committee and the CEO in discharging their market risk management responsibilities. The MRMC includes senior representatives from both the business and support units, and is responsible for developing the bank's overall market risk management framework. This framework comprises key market risk principles and policies, and a comprehensive set of controls and monitoring processes to govern and manage the Group's market risk.

The MRMC is supported at the working level by the Market Risk Management Department ("MRMD"), a department within Group Risk Management Division. The MRMD is responsible for formulating policies and procedures pertaining to market risk as well as putting in place an effective system of monitoring, reporting and control mechanisms.

Market Risk Management Framework

The key elements in the market risk management framework are policies and procedures, risk limits and risk measures.

Policies & Procedures – Approved by the Board Risk Committee and the CEO, the policies and procedures provide guidance on the oversight and management of the Group's market risk, and facilitate a common market risk language in terms of definitions and methodologies adopted across the Group. Controls and clear communications are in place to ensure that all business activities conform to the Group's risk management policies.

Risk Limits – All trading risk positions are monitored on a daily basis against the authorised limits by support units independent of the businesses. Under the market risk corporate governance framework, limits are approved at various business activity levels, with clearly defined exception escalation procedures for each level. All exceptions are to be promptly reported to the relevant senior management for appropriate ratification. Only authorised trading activities may be undertaken by the various business units.

Risk Measures – The Value-at-Risk ("VaR") methodology is the primary market risk measure for the Group's trading activities. The Board Risk Committee agrees on a market risk appetite based on VaR. VaR is measured and monitored by risk types, namely interest rate risk, foreign exchange risk, equity risk, volatility risk and credit spread risk, as well as at the aggregate level. The Group adopts the historical simulation approach to measuring VaR, applied against a 10-day holding period at a 99% confidence level. The Group prefers historical simulation as it involves fewer assumptions on the distribution of trading losses compared to other approaches. For back-testing purposes, the Group also computes a VaR of 1-day holding period to ascertain the model's integrity.

Nevertheless, as VaR is a statistical measure based on historical market fluctuations, it might not accurately predict forward-looking market conditions. Furthermore, VaR only reflects the potential risk of loss arising from normal market conditions, based on recent market experience.

Stress Testing

To augment VaR, the Group performs Stress Testing and Scenario Analysis to better quantify potential losses arising from low probability but plausible extreme market conditions. Stress Tests and Scenario Analyses provide insights into the impact on the Group's portfolio as a result of abnormal market conditions. The stress scenarios are continually reviewed and fine-tuned to ensure they stay relevant to the Group's risk profile and economic conditions. The main objective of these analyses is to determine if potential losses from such extreme markets are within the Group's risk tolerance.

Other Risk Metrics

As the Group's main market risk is to interest rate movements, Present Value of a Basis Point ("PV01"), which measures the change in value of interest rate sensitive exposures resulting from a 0.01% increase in interest rates, is an additional measure monitored on a daily basis. This is a sensitivity measure that identifies the parts of the yield curve where exposures are most vulnerable to interest rate changes, providing insights to the implementation of hedging strategies.

Other than VaR and PV01, the Group also utilises other risk metrics such as notional amounts and derivative greeks for specific exposure types, where appropriate to supplement its risk measurements.

The table on the right provides a summary of the Group's Trading VaR profile, by risk types for 2004.

VaR (10-DAY HOLDING PERIOD) BY RISK TYPE – TRADING PORTFOLIO

	2004				2003			
(S$m)	**Year end**	**Ave**	**Min**	**Max**	Year end	Ave	Min	Max
Interest rate risk	**14.99**	**8.46**	**2.88**	**22.23**	8.42	11.44	2.88	27.92
Foreign exchange risk	**1.05**	**0.90**	**0.06**	**4.29**	0.28	4.61	0.02	15.81
Equity risk	**0.31**	**0.13**	**0.00**[3]	**0.59**	0.23	0.69	0.03	5.54
Volatility risk[1]	**0.27**	**0.64**	**0.17**	**1.97**	0.83	NR[4]	NR[4]	NR[4]
Credit Spread risk	**0.23**	**0.34**	**0.01**	**2.04**	1.08	NR[4]	NR[4]	NR[4]
Diversification effect[2]	**-1.55**	**-2.34**	**NM**[5]	**NM**[5]	-2.13	-6.56	NM[5]	NM[5]
Aggregate risk	**15.30**	**8.13**	**2.90**	**20.69**	8.71	11.46	3.57	27.22

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

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

(3) The minimum for equity VaR is zero due to the small size of the equity portfolio and the reporting of equity volatility risk under the volatility VaR.

(4) NR – not reported for FY 2003.

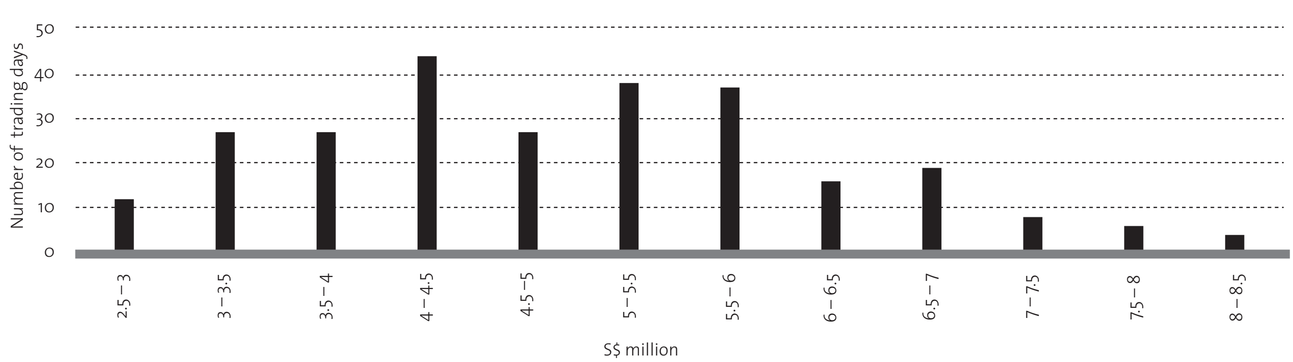
(5) NM – not meaningful as the minimum and maximum of the VaR for each risk type and the aggregate occurred on different days.

The Group has no significant trading exposure to Commodity price risk.

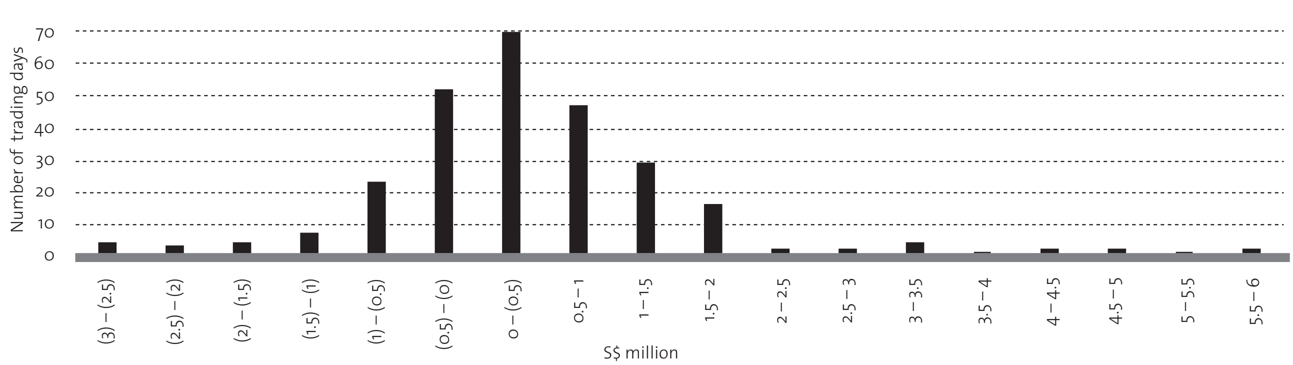
Back-testing

To ensure the continual integrity of the VaR model, the

Frequency Distribution of Trading Book Daily VaR (1-Day Holding Period) for FY 2004



Frequency Distribution of Trading Book Daily Revenue for FY 2004



Group conducts back-testing to confirm the consistency of actual daily trading profits and losses ("P&L") against the statistical assumptions of the model. To enhance the back-testing process, theoretical P&L are also computed by marking to market the same set of positions as used for the VaR calculations.

Asset Liability Management Framework

The Asset Liability Management Committee ("ALCO") is the senior management forum that is responsible for overseeing the Group's liquidity and balance sheet risks. The ALCO comprises the Chief Executive Officer, the Chief Financial Officer and other senior representatives from both the business and support units. The ALCO is supported by the Asset Liability Management Department within the Group Risk Management Division.

The Group's Asset Liability Management framework consists of 3 components:

- Interest Rate Risk Management
- Structural Foreign Exchange Risk Management
- Liquidity Management

Interest Rate Risk – The main market risk faced by the Group is the interest rate risks arising from the re-pricing mismatches of assets and liabilities arising from its banking business. These are monitored through tenor limits and net interest income changes.

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

The funding mix varies across the Group. In Singapore, the lending portfolio is largely funded by demand, savings and fixed deposits. The major component of interest rate risks lies in the Bank's extension of commercial property loans, housing loans and automobile loans, which are generally priced at fixed rates. The Group uses the interest rate swap market actively to ensure that these fixed rate exposures are managed within its risk appetite.

Structural Foreign Exchange Risk – The Group's structural foreign exchange exposure arises primarily from its equity investment in overseas subsidiaries and related companies; head office funds in overseas branches and investment in fixed assets and premises. The Group's policy is to protect its capital by ensuring that, where appropriate and practical, exposures arising from changes in exchange rates are minimised. The decision to hedge or otherwise is normally based on economic considerations rather than short term accounting impact.

Liquidity Risk – The objective of liquidity management is to ensure that the Group has sufficient funds to meet its contractual and regulatory financial obligations at all times. As a policy, the Group requires most of its individual subsidiaries and overseas branches to be self-sufficient and to fund their own operations. It is the responsibility of each local management team to ensure compliance with local regulatory and the Group's requirements on liquidity management. Liquidity is managed daily at each branch or subsidiary, taking into account the complexity of the individual balance sheet, as well as the depth and liquidity of the local market.

The Group's liquidity policy is to ensure that all contractual and behavioural commitments can be met by readily available sources of funding. In addition, a level of liquid assets is maintained in relation to cash flows to provide further sources of funding in the event of a crisis. The Group frequently accesses the wholesale financial markets to ensure the availability of funds.

The liquidity management process includes projecting cash flows by major currencies; monitoring liquidity ratios and depositor concentration to ensure an appropriate funding mix and avoid undue reliance on large individual depositors; and maintaining a contingency funding plan. Cash flow projections are also subject to stress tests to ensure that the Group has the ability to withstand sudden and heavy cash outflows. The stress tests are conducted on a regular basis to assess and measure liquidity risk under a bank-specific and general market crisis situation.

Pursuant to MAS regulations, banks are currently required to meet a statutory Minimum Liquid Assets ("MLA") requirement, comprising Singapore Government Securities, Singapore Government Securities held under overnight repurchase agreements with, among others, banks in Singapore, and commercial bills of exchange in Singapore dollars, accepted or endorsed by banks in Singapore. In addition, the Bank maintains a daily minimum cash balance with the MAS of at least 3% of its Singapore-dollar denominated liabilities. With the introduction of the new liquidity supervision framework under the revised MAS613 Notices to Banks in Singapore, the Group is now operating under the risk-determined and bank-specific MLA framework, whereby it qualifies for lower MLA requirements based on its liquidity risk profile and management capabilities.

OPERATIONAL RISK MANAGEMENT

Operational risk is the potential loss caused by a breakdown in internal processes and systems, deficiencies in people and management, or operational failure arising from external events. The goal of operational risk management is to minimise unexpected and catastrophic losses and manage expected losses. This enables new business opportunities to be pursued in a risk controlled manner and increases risk adjusted profitability through calculated risk-and-reward decision making.

Operational risk management comes under the oversight of the Operational Risk Management and Information Security Committee ("ORISC"), which includes senior representatives from risk management, business units and relevant support functions. Business units are supported by the Operational Risk Management ("ORM") Department of Group Risk Management Division, which has established the operational risk framework, including policies and methodologies and provides independent oversight of operational risk monitoring and control. The operational risk management programmes are actively implemented through the Operational Risk Co-ordinators in the business units.

A comprehensive strategy has been formulated to provide a group-wide integrated solution encompassing the roll-out of qualitative and quantitative tools and methodologies which will position the Group to qualify for the more proactive risk management approaches recommended by the Basel committee.

A well-established and comprehensive loss event and incident reporting system that is aligned to both regulatory and industry standards, to monitor and manage operational losses is in place. An ongoing risk and control assessment programme has been implemented to reinforce our risk assessment and management capabilities. To strengthen our "early warning" system, a key indicator programme is being progressively rolled-out to identify potential operational risk exposures to minimise losses before they occur. Business continuity and crisis management programmes are in place as an integral part of the Group's strategy to mitigate risks and to manage the impact of unforeseen events. In addition, operational risk training programmes are conducted on an ongoing basis to cultivate a pro-active risk management culture within the Group.

FIDUCIARY RISK MANAGEMENT

In providing investment or wealth management products or services, it is critical to ensure that the business units perform at the appropriate standard relative to the Group's trust relationship with a client. Fiduciary risk is the possibility that the Group, may knowingly or unknowingly, in the course of, among other things, managing funds, exercise discretion, make decisions, or take actions which fail to satisfy the applicable standard of conduct appropriate for a trustee relationship.

The Group is putting in place a Fiduciary Risk Management Programme, focusing primarily on compliance to applicable corporate standards with regular identification, assessment, mitigation and monitoring of fiduciary risk exposures.

The Fiduciary Risk Management Committee ("FRMC") is currently being established to oversee fiduciary-related risks that may result in losses or reputational damage. The FRMC oversees the Group's fiduciary risk profile and co-ordinates the development and implementation of Fiduciary Risk Management principles and policies for the OCBC Group.