Financial Risk Management

RISK MANAGEMENT ORGANIZATION

The LBP Group is involved in various banking activities that expose it to various risks which under the regular course of business require the Bank to effectively measure and analyze, monitor and control identified risks. This includes credit risk, market risk (price risk, interest rate risk and foreign exchange risk) and liquidity risk. The Bank manages all risks in accordance with set principles, properly aligned organizational structure, defined duties and responsibilities, established policies and procedures as well as appropriate measurement, monitoring and control processes.

The following key principles support the Bank's approach to risk management:

- The Board of Directors exercises oversight on all risk-related functions and activities of the Bank based on a top-down structure.

- The Board risk management oversight function is rendered through various committees like the Risk Management Committee (RiskCom), the Audit Committee (AC), the Asset and Liability Committee (ALCO) and the Investment and Loan Committee (ILC). In general, the RiskCom serves as the overseer for managing the Bank's credit, market, liquidity, operational and other bank-wide risks in a coordinated manner within the organization. Specifically, it approves policies and evaluates effectiveness of the Bank's risk management framework.

- The Risk Management Group (RMG) is independent from risk taking units and performs the oversight function for all major risk areas (credit, market and liquidity, operational and other bank-wide risks). It oversees risk management implementation, monitoring and control.

- Under RMG, which is headed by the Chief Risk Officer, are three departments created to handle specific risk areas as follows: Credit Policy and Risk Management Department (CPRMD), Treasury Risk Management Department (TRMD), and Business Risk Management Department (BRMD) for operations risk, including system, legal, technology and other risk.

- Enterprise Risk Management (ERM) complements the Bank's silo risk management approach and reinforces risk analysis as it cross-functionally examines interdependencies and dissects its sources.

RISK CATEGORIES

As the Bank recognizes all risks inherent to its mandate and its various business activities, it embarked on an Enterprise-wide Risk Management (ERM) Project to capture all risk events categorized under BSP Circular No. 510 (Guidelines on

Supervision by Risk): credit risks, market risks, compliance risks, liquidity risks, interest rate risks, operations risks, reputation risks and strategic risks. The 52 risks that comprise the Bank's Risk Universe and falling under the above eight categories are defined, customized and given substance in the LANDBANK Risk Dictionary developed under the ERM initiative.

Through the Risk Self-Assessment (RSA) process under the ERM, senior management prioritized critical risks in terms of inherent impact and effectiveness of risk management activities. This resulted in the prioritization of 26 critical risks. From these 26 critical risks the top five risks of the Bank were selected in, as follows:

- **Market Risk** is the failure to anticipate and manage fluctuations in the values of the Bank's investments and could lead to economic losses.

- **Counterparty Credit Risk-Loans** is the inability to review and analyze the credit quality of potential/existing borrowers to serve as basis for loan approval (at application) and to determine the probability of default (on an ongoing basis), could lead to economic losses.

- **IT Management Risk** is the failure to effectively prioritize IT initiatives and administer IT resources, may lead to lost business and hinder the achievement of the Bank's goals and objectives.

- **People Risks:**

    - **People Development and Performance Risk** is the inability to develop and enhance employee skills and provide a sound employee performance management system, may reduce employee motivation and may adversely impact the achievement of desired performance and conduct.

    - **Recruiting and Retention Risk** is the inability of the Bank to attract, retain and develop competent employees, might lead to organizational dysfunction and low morale.

    - **Succession Planning Risk** is the failure to create and implement a feasible continuance plan for key bank positions and employees, might adversely affect the stability of organizational leadership and business continuity.

- **Client Relationship Management Risk** is the inability to effectively identify and address the customers' needs which will negatively affect the Bank's reputation and relationship with customers.

Additionally and in view of the changing macro-economic landscape, another RSA process was conducted in December 2012 and the following seven risks were identified:

- **Strategic Planning Risk** is the failure to develop, implement and monitor institutional strategies and direction will threaten the Bank's overall viability and growth prospects.

- **Socio-Political Risk** is the failure to understand, address and anticipate political mandates and social and cultural developments will affect the Bank's overall operations.

- **Technology Identification Risk** is the failure to identify and prioritize the appropriate system and technology to support business processes or major initiatives may lead to costly investments and work inefficiencies and may compromise product or service delivery.

- **Measuring and Monitoring of Major Initiatives Risk** is the failure to identify appropriate performance metrics and standards to monitor attainment of objectives and targets may prevent the achievement of desired output and performance.

- **Lending Capacity Risk** is the failure to maximize loanable funds might lead to loss of business opportunities for the Bank.

- **Liquidity Risk** is the failure to properly manage the Bank's cash flows and have sufficient available alternative fund sources at reasonable cost could affect the Bank's ability to meet its obligation as they fall due.

- **Banking Regulation Risk** is the failure to comply with circulars, memoranda, advisories and other issuances of regulatory bodies as applicable to the banking industry, may result in loss of business, administrative/criminal penalties/sanctions and loss to reputations. It is also the failure to set the stage for higher capital requirement in order to strategically align economic capital with regulatory requirements like Basel 3, AMLa amendments, etc.

RISK MANAGEMENT TOOLS

LBP makes use of various quantitative tools and metrics for monitoring and managing risks. Some of these tools are common to a number of risk categories, while others are continuously being developed to respond to particular features of specific risk categories. As part of risk management process, LBP continually evaluates the appropriateness and reliability of risk management tools and metrics to respond to evolving risk environment and simultaneously comply with regulatory requirements and industry best practices. The following are the most important quantitative tools and metrics LBP currently uses to measure, manage and report risk:

- **Value-at-Risk (VaR).** LBP uses this approach to derive quantitative measures for the bank's trading book market risks under normal market condition. Portfolios are formed primarily to diversify risk in trading and investment assets. For a given asset category or portfolio (e.g. government securities, foreign securities, equity investments, foreign exchange), VaR measures the potential loss (in terms of market value) that, under normal market conditions, will not be exceeded with a defined confidence level in a defined period. The VaR for a total portfolio represents a measure of the bank's diversified market risk in that portfolio.

- **Stress Testing**. Analysis of credit, market, and liquidity risk is supplemented with stress testing. For market risk management purposes, stress tests is performed because value-at-risk calculations are based on relatively recent historical data, and thus, only reflect possible losses under relatively normal market conditions. Stress tests help LBP determine the effects of potentially extreme and probable market developments on the value of its market risk sensitive exposures, on its highly liquid and less liquid trading positions, as well as, on investments. The Bank uses stress testing to determine the amount of economic capital allocation required to cover market risk exposure after evaluating extreme and probable market conditions. For liquidity risk management purposes, the Bank performs stress tests to evaluate the impact of sudden stress events on its liquidity position.

- **Scenario Analysis.** This is a tool that generates forward-looking "what-if" simulations for specified changes in market factors. The scenario analysis simulates the impact of significant changes in domestic and foreign interest rates. The implications of specific scenarios are simulated on the current portfolio and liquidity position of the bank.

- **Regulatory Risk Reporting.** The Bangko Sentral ng Pilipinas (BSP), as the banking regulator in the Philippines, assesses LBP's capacity to assume risk in several ways. In compliance with BSP Memorandum Circular No. 538, s. of 2006 re: calculation of the Bank's capital adequacy ratio (CAR) consistent with the revised International Convergence of Capital Measurement and Capital Standards, or popularly known as Basel II, LBP submits on a quarterly basis result of Capital Adequacy Ratio Calculation.

CREDIT RISK MANAGEMENT

Credit risk is the risk that one party to a financial instrument will fail to discharge an obligation and cause the other party to incur financial loss. Consistent with good corporate governance, the Parent manages credit risk by setting limits for individual borrowers and group of borrowers and industry segments. The Parent also monitors credit exposures, and continually assesses the credit quality of counterparties. For certain clients, credit risk management is supplemented by credit rating systems. Various rating systems were developed for corporations, small and medium enterprises, financial institutions, cooperatives and local government units. The ratings of clients are being used, among others, as basis for determining the credit worthiness of loan clients.

For the year, the Parent has approved the automated credit rating system model for LGUs for implementation in CY2013. The automated model for Livelihood Loans, as well as, the manual model for Rural, Thrift and Cooperative Banks is in the implementation stage. The Credit Risk Engine System (CRES) Phase 2 Project commenced on 30 July 2012 and it aims to build data infrastructure to allow the Bank to automate the calculation of Credit Risk Weighted Assets (CRWA) under the Foundation Internal Ratings Based (FIRB) Approach initially for Local Government Units (LGUs) portfolio.

Credit derivatives and credit-related commitments

Credit risk with respect to derivative financial instruments is limited to those instruments with positive fair values, which are included under “Other Assets”. The Bank also makes available to its customers guarantees which may require that the Bank make payments on behalf of these clients. Such payments are collected from customers based on the terms of the Letter of Credit (LC). These guarantees expose the Bank to similar risks as loans and these are mitigated by the same control processes and policies. As a result, the maximum credit risk, without taking into account the fair value of any collateral and netting arrangements, is limited to the amounts on the balance sheet plus commitments to customers.

The table below shows the maximum exposure to credit risk for the components of the statement of financial position, including derivatives. The maximum exposure is shown gross, before the effect of mitigation through the use of master netting and collateral arrangements.

Risk concentrations of the maximum exposure to credit risk

Concentrations arise when a number of counterparties are engaged in similar business activities, or activities in the same geographic region, or have similar economic features that would cause their ability to meet contractual obligations to be similarly affected by changes in economic, political or other conditions.

The Parent has established concrete guidelines and procedures relative to managing, monitoring and reporting large exposures and credit risk concentrations in accordance with the rules and regulations issued by the BSP.

Overall credit risk management oversight is a function of the Board of Directors (BOD)-level Risk Management Committee. In general, mitigation measures on credit risks are implemented at various levels. However, oversight on credit risk management is vested on the Risk Management Group which is independent from the business function. This is critical in ensuring the integrity and objectivity of the credit risk assessment, pricing, and management process.

The Parent ensures that the credit risks undertaken are commensurate with the risk appetite and the Parent’s capacity to manage such risks. Thus, regular monitoring of both the level of risk and equity capital is undertaken to ensure that even in instances of major credit surprises, the Parent could sustain its operations in spite of the losses incurred and continue to be an efficient financial intermediary for development and institutional financing.

The BSP considers that credit concentration exists when total loan exposure to a particular industry exceeds 30 per cent of total loan portfolio.

Collateral and other credit enhancements

The amount and type of collateral required depends on the type of borrower and assessment of the credit risk of the borrower. The Bank's revised Credit Manual provides the guidelines on the acceptability of collateral and maximum valuation for each type of collateral.

The following are the main collaterals accepted by the Bank:

- For commercial lending - cash or government securities, real estate properties, inventory, chattel.

- For retail lending - mortgages over residential properties.

The Bank also obtains guarantees from corporations which are counter-guaranteed by the Philippine National Government and from other corporations accredited by the Bank.

The Bank monitors the market value of collateral, requests additional collateral in accordance with the underlying agreement, and monitors the market value of collateral obtained during its review of the adequacy of the allowance for impairment losses.

It is the Bank's policy to dispose of foreclosed properties in an orderly fashion. The proceeds are used to reduce or repay the outstanding claim. In general, the Bank does not occupy foreclosed properties for business use.

The Bank also makes use of master netting agreements with counterparties.

MARKET RISK MANAGEMENT

Market risk is the failure to anticipate and manage fluctuations in the values of the Bank's investments and could lead to economic losses. LBP recognizes three types of market risks: Interest Rate Risk, Foreign Exchange Risk, Equity Price Risk.

Market Risk Management Framework

LBP is exposed to market risks in both its trading and non-trading banking activities. The Bank assumes market risk in market making and position taking in government securities and other debt instruments, equity, foreign exchange and other securities, as well as, in derivatives or financial instruments that derive their values from price, price fluctuations and price expectations of an underlying instrument (e.g. share, bond, foreign exchange or index). LBP exposure on derivatives is currently limited to currency swaps and currency forwards to manage foreign exchange exposure. Although the Bank is also exposed to derivatives that are embedded in some financial contracts, these are considered insignificant in volume.

The Bank uses a combination of risk sensitivities, value-at-risk (VaR), stress testing, capital adequacy ratio and capital metrics to manage market risks and establish limits.

The LBP Board of Directors, Risk Management Committee and the Asset and Liability Committee (ALCO), define and set the various market risks limit for each trading portfolio. The Treasury and Investment Banking Sector (TIBS), particularly the Foreign Exchange Department (FED) (which handles foreign exchange and foreign securities trading), and the Local Currency Department (LCD), which takes charge of Government Securities and Equities, allocate these limits to each of the traders in their respective departments.

A management loss alert is activated whenever losses during a specified period equal or exceed specified management loss alert level. LBP controls and minimizes the losses that may be incurred in daily trading activities through the VaR and stop loss limits.

Positions are monitored on a daily basis to ensure that these are maintained within established limits. Position Limits are also established to control losses but are subordinated to the VaR and Stop Loss Limits.

Managing Market Risk Components

The following discusses the key market risk components along with respective risk mitigation techniques:

<u>Interest Rate Risk Management</u>

Interest rate risk arises from the possibility that changes in interest rates will affect future profitability or the fair values of financial instruments. LBP adopts two perspectives in measuring Interest Rate Risk as follows:

- <u>Earnings Perspective</u> – The Bank uses the Earnings-at-Risk (EaR) Model to estimate changes in net interest income (NII) under a variety of rate scenarios over a 12 month horizon. It is a simulation method that analyzes the interest rate risk in the banking book in terms of earnings (accrual basis). EaR measures the loss of NII resulting from upward/downward interest rate movements in a “Business as usual” environment, either through gradual movements or as a one-off large interest rate shockover a particular time horizon.

- Economic Value Perspective – The Bank uses the Economic Value of Equity (EVE) Model to assess the potential long-term effects of changes in interest rates. This model provides long-term view of possible effects of interest rate changes over the remaining life of the Bank's holdings. This model also measures the change in the Bank's economic value of equity for specified changes in interest rates.

Foreign Exchange Risk Management

Currency risk is the risk that the value of a financial instrument will fluctuate due to changes in foreign exchange rates. LBP views the Philippine Peso as its functional currency. Positions are monitored daily to ensure that these are within established limits.

Equity Price Risk Management

The Bank is exposed to equity price risk as a consequence of value fluctuations of equity securities. Equity price risk results from changes in the levels of volatility of equity prices, which in turn affect the value of equity securities and impacts on profit and loss of the Bank. Equities are subject to daily mark-to-market and controlled through risk limits such as position, VaR, Management Alert and Stop Loss.

Market Risk Measurement Models

*** Value-at-Risk Analysis**

Value at Risk (VaR) is a statistical approach for measuring the potential variability of trading revenue. It is used to measure market risk in the trading book under normal conditions, estimating the potential range of loss in the market value of the trading portfolio, over a one-day period, at the 99 per cent confidence level, assuming a static portfolio. This level implies that on 99 trading days out of 100, the mark-to-market of the portfolio will likely either (1) increase in value, or (2) decrease in value by less than the VaR estimate; and that on 1 trading day out of 100, the mark-to-market of the portfolio will likely decrease in value by an amount that will exceed the VaR estimate.

VaR is calculated by simulating changes in the key underlying market risk factors (e.g., interest rates, interest rate spreads, equity prices, foreign exchange rates) to determine the potential distribution of changes in the market value of LBP's portfolios of market risk sensitive financial instruments. Daily VaR calculations are compared against VaR limits, the monetary amount of risk deemed tolerable by management.

The Value-at-Risk disclosure for the trading activities is based on Variance-Covariance or Parametric Value-at-Risk Model. For Equities, Foreign Exchange and Foreign Securities trading portfolio, Parametric VaR is run parallel with the internally developed Historical Simulation VaR Calculation Model as the Bank continuously pursues initiatives to improve processes in preparation to the bank's migration towards an

Internal Model Approach for capital charging. The VaR disclosure is intended to ensure consistency of market risk reporting for internal risk management, for external disclosure and for regulatory purposes. The over-all Value-at-Risk limit for the LBP Treasury Group's trading activities was P80 million (with a 99 per cent confidence level, and a one-day holding period) throughout 2012.

*** Back-Testing**

Back-testing is the basic technique used in verifying the quality of risk measures used by the Bank. It is the process of comparing actual trading results with model-generated risk measures.

Back-testing is a standard measure in determining the accuracy and predictive ability of risk models. The results of back-testing are used to assess the performance of treasury or trading strategies. In back-testing, the focus is on the comparison of actual daily changes in portfolio value, and hypothetical changes in portfolio value that would occur if end-of-day positions remain unchanged during the one-day holding period.

Back-testing results are presented to the Asset and Liability Committee (ALCO) which serves as LBP management level risk committee and the Risk Management Committee (RiskCom), a Board level risk oversight committee. The Committees analyze actual performance against VaR measures to assess model accuracy and to enhance the risk estimation process in general.

*** Stress Testing**

Measuring market risk using statistical risk management models has recently become the main focus of risk management efforts in the banking industry where banking activities are exposed to changes in fair value of financial instruments. LBP believes that the statistical models alone do not provide reliable method of monitoring and controlling risk. While VaR models are relatively sophisticated, they have several known limitations. Most significantly, standard VaR models do not incorporate the potential loss caused by very unusual market events. Thus, the VaR process is complemented by Stress testing to measure this potential risk.

Stress test is a risk management tool used to determine the impact on earnings of market movements considered "extreme", i.e.,beyond "normal" occurrence. Stress tests are LBP's measures of risks to estimate possible losses which the Value at Risk (VaR) does not capture.

The Bank's Portfolio Scenario Analysis (PSA) report is a model forecasting the loss return values of a selected portfolio. It calculates the size of possible losses related to a precise scenario. It identifies scenarios that may influence the portfolio strongly and which market variables may trigger these scenarios to be able to come up with a sound portfolio risk management. The Portfolio Scenario Analysis is a replication scenario based on historical events based on imagined crises or future developments that have not yet occurred.

Results of PSA are also simulated to Capital Adequacy Ratio of the Bank to be able to assess its impact on the CAR compliance set at 10 per cent.

Liquidity Risk Management

Liquidity Risk Management Framework

The LBP Board has delegated the responsibility of managing the overall liquidity of the Bank to a committee of senior managers known as Asset/Liability Management Committee (ALCO). This Committee meets twice a month or more frequently as required by prevailing situations. Senior management is responsible for effectively executing the liquidity strategy and overseeing the daily and long-term management of liquidity risk. ALCO delegates day-to-day operating responsibilities to the treasury unit based on specific practices and limits established in governing treasury operations. The Treasury Risk Management Department is responsible for the oversight monitoring of the Bank's risk positions and ensures that reports on the Bank's current risk are prepared and provided to ALCO and BOD/RiskCom in a timely manner.

The Treasury Group submits to the TIBS Head and the President, Daily Treasury Reports which include the Bank's cash/near cash investments and other data related to liquidity which assist senior management in decision making.

The Bank's liquidity position is subjected to stress testing and scenario analysis to evaluate the impact of sudden stress events. The scenarios are based on historical events, case studies of liquidity crises and models using hypothetical events.

Liquidity Risk Measurement Models

The Bank formulates different types of liquidity risk measurement tools to determine any future liquidity structural imbalances to be able to formulate strategies to mitigate liquidity risk and address funding needs.

Liquidity is being monitored and controlled thru maturities of assets and liabilities over time bands and across functional currencies as reflected in the Liquidity Gap Report. This report is prepared to provide senior management and the Board timely appreciation of the Bank's liquidity position.

The ALCO and the TIBS are responsible for the daily implementation and monitoring of relevant variables affecting LBP's liquidity position. ALCO reviews the Bank's assets and liabilities position on a regular basis and, in coordination with the TIBS, recommends measures to promote diversification of its liabilities according to source, instrument and currency to minimize liquidity risks resulting from concentration in funding sources.

LBP formulated a liquidity contingency plan using extreme scenarios of adverse liquidity which evaluates the Bank's ability to withstand these prolonged scenarios and to ensure that it has sufficient liquidity at all times. The contingency plan focuses on the LBP's strategy for coordinating managerial action during a crisis and includes procedures for making up cash flow shortfalls in adverse situations. The plan details the amount of available funds of the Bank (such as unused credit facilities) and the scenarios under which it could use them.

Although the Bank pursues what it believes to be a prudent policy in managing liquidity risk, a maturity gap does, from time to time, exist between the Bank's assets and liabilities. In part, this comes about as a result of the Bank's policy to seek higher yielding assets, a policy which will generally lead to the average maturity of its financial assets exceeding that of its liabilities.

- The Bank does liquidity gap analysis using the Liquidity Gap Report (LGR). It is a risk measurement tool used in identifying the current liquidity position to determine the ability to meet future funding needs. It breaks down balance sheet items according to estimated maturities of assets and liabilities in order to determine any future structural imbalances such as long-term assets growing faster than long term liabilities. The TRMD assists ALCO in its function by preparing Peso, FX Regular, FCDU and consolidated Liquidity Gap Reports on a monthly basis.

The LBP has established guidelines for liquidity risk limit setting to enable it to properly and prudently manage and control liquidity risk, consistent with the nature and complexity of its business activities, overall level of risk and its risk appetite. The Maximum Cumulative Outflow (MCO) limit set by the Board of Directors is one of the tools used to manage and control the liquidity risk in the gap report of the Bank. It is a measure of the liquidity gap between maturing assets and liabilities. MCO limits put a cap on the total amount of negative gaps in the near time buckets.

Financial Analysis is another liquidity risk measurement tool that calculates and compares liquidity and leverage ratios derived from information on the Bank's financial statements against set liquidity/leverage limits. The Bank makes use of the following financial ratios for liquidity risk management:

1. Liquid Asset to Total Assets Ratio
2. Volatile Liabilities against Liquid Assets Ratio
3. Volatile Liabilities against Total Assets Ratio
4. Liabilities against Assets (Debt/Total Asset Ratio)

The Bank examines several possible situations, usually worst case, most likely case and best case. It does Portfolio Stress Test and Liquidity Stress Test. Result of scenario analysis helps the Bank focus on the level of liquidity that could be reasonably built within a specified period to meet different situations. This also serves as guide for the

Bank in the limit setting process for the various ratios mentioned, for example, minimum liquid assets to volatile liabilities.

LBP developed the Liquidity Stress Test to address the shortcoming of LGR. This is a risk management tool used to evaluate the potential impact on liquidity of unlikely, although plausible, events or movements in a set of financial variables. While such unlikely outcomes do not mesh easily with LGR analysis, analysis of these outcomes can provide further information on expected portfolio losses or cash flow over a given time horizon.

Liquidity management is one of the fundamental preconditions to achieving all other banking activities - strategically mapped by ALCO, actively managed by the TIBS through the Asset and Liabilities Management Department (ALMD) and overseen by the Treasury Risk Management Department (TRMD).

To limit liquidity risk, LBP Management has instituted the following:

1. Active and Appropriate Board and Senior Management Oversight

The Board and Senior Management receives regular liquidity reports and updates to fully inform them of the level of liquidity risk assumed by the Bank and if activities undertaken are within the prescribed risk tolerance in accordance with approved guidelines, liquidity /funding policy (targets), risk limits.

2. Diversified funding sources - The Bank has identified the following sources of funding:

- Cash from operations
- Sale of Government Securities (GS) under Available for Sale (AFS)
- Government and retail deposit sources
- Interbank market
- Borrowings from BSP
- Undertaking Peso-Dollar Swaps
- Accessing loans from multilateral and bilateral institutions (WB, ADB, JBIC, etc.)

LBP performs a comprehensive liquidity risk measurement and control using as tool the Consolidated Liquidity Gap Report covering the `entire LBP Group. Risk models used in liquidity risk management are subjected to independent model validation. The Internal Audit Group is tasked to do model validation. An independent validation is also being done by the Basel Officer for Treasury who reports directly to the Head of the Risk Management Group. For this year, incorporated were latest enhancements made on the model as a result of independent model validation by a third party auditor.