THE HONGKONG AND SHANGHAI BANKING CORPORATION LIMITED
SRI LANKA BRANCH

Risk Management Framework

All of our activities involve, to varying degrees, the analysis, evaluation, acceptance and management of risks or combinations of risks. An established risk governance framework and ownership structure ensures oversight of and accountability for the effective management of risk at Group, regional and global business levels. HSBC CBH Risk Function consists of Wholesale & Market Risk & RBWM Risk, Security & Fraud Risk and Operational Risk.

Credit Risk

Credit risk is defined as the risk of financial loss if a customer or counterparty fails to meet an obligation under a contract. Credit risk arises principally from direct lending, trade finance and also from certain other products such as guarantees, derivatives.

Credit risk**:**

- Is measured as the amount which could be lost if a customer or counterparty fails to make repayments. In the case of derivatives, the measurement of exposure takes into account the current mark to market value to HSBC of the contract and the expected potential change in that value over time caused by movements in market rates;

- Is monitored within limits, approved by individuals within a framework of delegated authorities. These limits represent the peak exposure or loss to which HSBC could be subjected should the customer or counterparty fail to perform its contractual obligations;

- Is managed through a robust risk control framework which outlines clear and consistent policies, principles and guidance for risk managers.

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Credit Risk Management

The role of the independent credit control unit is fulfilled by the local Risk team which is a part of the Asia Pacific Risk function. Credit approval authorities are delegated by Regional Office (ASP) to Chief Executive Officer (CEO) who in turn delegates limit to local risk executives.

The principle objectives of our credit risk management are;

- To maintain across HSBC a strong culture of responsible lending and a robust risk policy and control framework.
- To both partner and challenge our businesses in defining, implementing and continually re-evaluating our risk appetite under actual and scenario conditions; and
- To ensure there is independent, expert scrutiny of credit risks, their costs and their mitigation.

Credit Quality of Financial Instruments

Our credit risk rating systems and processes differentiate exposures in order to highlight those with greater risk factors and higher potential severity of loss. In the case of individually significant accounts that are predominantly within our wholesale businesses, risk ratings are reviewed regularly and any amendments are implemented promptly. Within our retail businesses, risk is assessed and managed using a wide range of risk models to maintain Risk Reward balance.

Our risk rating system facilitates the internal ratings-based ('IRB') approach under Basel II adopted by the Group to support calculation of our minimum credit regulatory capital requirement. Special attention is paid to problem exposures in order to accelerate remedial action..

Group and regional Credit Review and Risk Identification teams regularly review exposures and processes in order to provide an independent, rigorous assessment of credit risk across the Group, reinforce secondary risk management controls and share best practice. Internal audit, as a tertiary control function, focuses on risks with a global perspective and on the design and effectiveness of primary and secondary controls, carrying out oversight audits via the sampling of global/ regional/ country level control frameworks, themed audits of key or emerging risks and project audits to assess major change initiatives.

Impairment Assessment

It is our policy that each operating company in HSBC creates impairment allowances for impaired advances promptly and appropriately.

Impairment & Credit Risk Mitigation

The existence of collateral has an impact when calculating impairment on individually assessed impaired loans. When we no longer expect to recover the principal and interest due on a loan in full or in accordance with the original terms and conditions, it is assessed for impairment. If exposures are secured, the current net realisable value of the collateral will be taken into account when assessing the need for an impairment allowance. No impairment allowance is recognised in cases where all amounts due are expected to be settled in full on realisation of the collateral.

Personal lending portfolios are generally assessed for impairment on a collective basis as the portfolios typically consist of large groups of homogeneous loans. Methodologies used to calculate allowances on a collective basis: a roll rate methodology, discounted recovery methodology or a more basic formulaic approach based on historical losses. For individually assessed impairment the Discounted Cash Flow methodology is used.

The historical loss methodology is typically used to calculate collective impairment allowances for secured or low default portfolios such as personal loans. For loans which are collectively assessed using historical loss methodology, the historical loss rate is derived from the average contractual write-off net of recoveries over a defined period. The net contractual write-off rate is the actual amount of loss experienced after the realization of collateral and receipt of recoveries.

A roll rate methodology is more commonly adopted for unsecured portfolios when there are sufficient volumes of empirical data to develop robust statistical models. In certain circumstances personal loan portfolios have a statistically significant number of defaults and losses available, enabling reliable roll rates to be generated. In these cases a roll rate methodology is applied, and the average loss rate for each delinquency bucket is adjusted to reflect the average loss expected following receipt of recoveries. The average loss expected is derived from average historical collateral realisation values.

As an extended method to roll rate methodology, discounted recovery methodology uses the gross contractual loss of the portfolio from the roll rate methodology and determines the recovery out of the gross loss. The Discounted Recovery is then estimated for the recovery dome at the end of the realization period. Individual impairment is done for the non performing portion of the mortgage portfolio using the Discounted Cash Flow methodology where mortgage accounts are individually assessed to determine the impairment.

The nature of the collective allowance assessment prevents individual collateral values or loan-to-value (‘LTV’) ratios from being included within the calculation. However, the loss rates used in the collective assessment are adjusted for the collateral realisation experiences which will vary depending on the LTV composition of the portfolio. For example mortgage portfolios under a historical loss rate methodology with lower LTV ratios will typically experience lower loss history and consequently a lower net contractual write-off rate.

For wholesale portfolio, collectively assessed loans historical loss methodologies are applied to measure loss event impairments which have been incurred but not reported. Loss rates are derived from the observed contractual write off net of recoveries over a defined period. The net contractual write-off rate is the actual amount of loss experienced after realisation of collateral and receipt of recoveries. These historical loss rates are adjusted by an economic factor which adjusts the historical averages to better represent current economic conditions affecting the portfolio. In order to reflect the likelihood of a loss event not being identified and assessed an emergence period assumption is applied. This reflects the period between a loss occurring and its identification. The emergence period is estimated by regional management for each identified portfolio. The factors that may influence this estimation include economic and market conditions, customer behaviour, portfolio management information, credit management techniques and collection and recovery experiences in the market. A fixed range for the period between a loss occurring and its identification is not defined across the Group and as it is assessed empirically on a periodic basis, it may vary over time as these factors change. Given that credit management policies require all customers to be reviewed at least annually, we expect this estimated period would be at most 12 months.

Write off of Loans & Advances

Loans (and the related impairment allowance accounts) are normally written off, either partially or in full, when there is no realistic prospect of recovery. Where loans are secured, this is generally after receipt of any proceeds from the realisation of security. In circumstances where the net realisable value of any collateral has been determined and there is no reasonable expectation of further recovery, write-off may be earlier.

On residential mortgage and second lien loans, provision is created when the loan becomes overdue for more than 120 days depending on the realizable value of the security.

Unsecured personal facilities, including credit cards, are generally charge off at 180 days. It is done on the billing date of the month, the account reaches 180 days and the process is automated and any exception is tracked and manually done the next month. However early charge off could be triggered looking at the circumstance of the account for example on death, bankruptcy.

Usually Collections/Recovery activities may continue after charge off and Legal action would be taken if unable to come to an amicable settlement by both parties.

Collateral Management & Valuation

Although collateral can be an important mitigant of credit risk, it is the Group's practice to lend on the basis of the customer's ability to meet their obligations out of cash flow resources rather than rely on the value of security offered. Depending on the customer's standing and the type of product, facilities may be provided unsecured. However, for other lending a charge over collateral is obtained and considered in determining the credit decision and pricing. In the event of default, the bank may utilize the collateral as a source of repayment. Depending on its form, collateral can have a significant financial effect in mitigating our exposure to credit risk.

Liquidity Risk

Liquidity and funding risk is the risk that the Bank does not have sufficient financial resources to meet its obligations as they fall due or that it can only do so at excessive cost.

Liquidity risk arises from mismatches in the timing of cash flows. Funding risk arises when the liquidity needed to fund illiquid asset positions cannot be obtained at the expected terms and when required.

Liquidity and funding risk is:

- **Measured** using internal metrics including stressed operational cash flow projections, coverage ratio and advances to core funding ratios;
- **Monitored** against the Group's liquidity and funding risk framework and overseen by Regional and local Asset and Liability Management Committees ('ALCO's); and
- **Managed** on a stand-alone basis with no reliance on any Group entity (unless pre-committed) or CBSL unless this represents routine established business as usual market practice.

Management of liquidity and funding risk

HSBC's liquidity and funding risk management framework ('LFRF') employs two key measures to define, monitor and control the liquidity and funding risk of each of its operating entities. The advances to core funding ratio is used to monitor the structural long-term funding position, and the stressed cash flow projection, incorporating Group-defined stress scenarios, is used to monitor the resilience to severe liquidity stresses.

The advances to core funding ratio (ACF) and Stressed cash flow project (OCP) are monitored on a daily basis by the local management team, with monthly monitoring carried out by the Regional Office.

Advances to core funding ratio

Core funding represents the core component of customer deposits and any term professional funding with a residual contractual maturity beyond one year. Capital is currently excluded from the Bank's definition of core funding.

Stressed cash flow projection

HSBC monitors stressed cash inflows as against stressed cash outflows over both one-month and three-month time horizons, under Group specified and locally defined scenarios. The Bank is required to maintain a positive variance out to three months.

Inflows included are generated from liquid assets net of assumed haircuts, and cash inflows related to assets contractually maturing within the time period.

In general, customer advances are assumed to be renewed and as a result do not generate a cash inflow.

Market Risk

The risk that movements in market factors, including foreign exchange rates and commodity prices, interest rates, credit spreads and equity prices, which will reduce our income or the value of our portfolios.

Exposure to market risk is separated into two portfolios:

- Trading portfolios comprise positions arising from market-making and warehousing of customer derived positions
- Non-trading portfolios comprise positions that primarily arise from the interest rate management of our retail and commercial banking assets and liabilities, financial investments designated as available for sale.

Monitoring and limiting market risk exposures

Our objective is to manage and control market risk exposures while maintaining a market profile consistent with our risk appetite.

We use a range of tools to monitor and limit market risk exposures, including:

- Sensitivity analysis, the sensitivities of the net present values of asset and expected liability cash flows, in total and by currency, to a one basis point parallel shift in the discount curves used to calculate the net present values.
  Sensitivity limits are set for portfolios, products and risk types, with the depth of the market being one of the principal factors in determining the level of limits set.

- For foreign exchange risk, the total net short foreign exchange position and the net foreign exchange positions by currency
- Value at risk ('VAR') which is a technique that estimates the potential losses that could occur on risk positions as a result of movements in market rates and prices over a specified time horizon and to a given level of confidence and
- In recognition of VAR's limitations we augment VAR with stress testing to evaluate the potential impact on portfolio values of more extreme, though plausible, events or movements in a set of financial variables.

Limits are set for portfolios, products and risk types, with market liquidity being a primary factor in determining the level of limits set. Group Risk, an independent unit within Group Head Office, is responsible for our market risk management policies and measurement techniques. Each major operating entity has an independent market risk management and control function which is responsible for measuring market risk exposures in accordance with the policies defined by Group Risk, and monitoring and reporting these exposures against the prescribed limits on a daily basis

Both the VAR and Stressed VAR models we use are based predominantly on historical simulation. These models derive plausible future scenarios from past series of recorded market rates and prices, taking into account interrelationships between different markets and rates such as interest rates and foreign exchange rates.

The historical simulation models used incorporate the following features:

- historical market rates and prices are calculated with reference to foreign exchange rates and commodity prices, interest rates, equity prices and the associated volatilities;
- potential market movements utilized for VAR are calculated with reference to data from the past two years,
- potential market movements employed for stressed VAR calculations are based on a continuous one year period of stress for the trading portfolio

Branch routinely validates the accuracy of our VAR models by back-testing the actual daily profit and loss results, adjusted to remove non-modelled items such as fees and commissions, against the corresponding VAR numbers.

Operational Risk

The objective of our operational risk management is to manage and control operational risk in a cost effective manner within targeted levels of operational risk consistent with our risk appetite.

A formal governance structure provides oversight over the management of operational risk. A country level Risk Management Committee, meets on a monthly basis to discuss key risk issues and review the effective implementation of our operational risk management framework.

Business managers are responsible for maintaining an acceptable level of internal control, commensurate with the scale and nature of operations. They are responsible for identifying and assessing risks, designing controls and monitoring the effectiveness of these controls. The operational risk management framework helps managers to fulfil these responsibilities by defining a standard risk assessment methodology and providing a tool for the systematic reporting of operational loss data.

A centralized database is used to record the results of the operational risk management process. Operational risk self-assessments are input and maintained by business units. To ensure that operational risk losses are consistently reported and monitored at Group level, all Group companies are required to report individual losses in excess of a particular threshold.

Capital

Capital structure

The Bank's capital is segregated into Tier 1 and Tier 2 Capital:

Tier 1 Capital – Core Capital
This includes assigned/equity capital, statutory reserve fund, published retained profits, general and other reserves. The assigned capital is the amount provided by HSBC Asia Pacific to conduct its operation in Sri Lanka.

Tier 2 Capital – Supplementary capital
Revaluation reserve is the main constituent of supplementary capital for the bank. As per the CBSL regulations a prudential revaluation is done reflecting the full possibility of price fluctuations and forced sale, with prior approval from CBSL, which is then subject to a discount of 50%.

Upon the introduction of LKAS 32/39, general provision/collective impairment is not included in the accounts; hence Tier 2 will reflect NIL provision amounts from 2012 onwards.

Capital management

HSBC Sri Lanka follows the Capital Planning and Guidance as set out by its Group Office, while ensuring that all requirements as set out by the local regulator are complied with. In the matter of capital planning, the Bank relies on the monthly stress testing carried out in form of the Economic Value of Equity (EVE) calculation, as well as the Value at Risk (VaR) stress testing to evaluate capital adequacy. An annual stress testing on credit risk is also carried out to establish the relevant impact on capital.

The Bank maintains records of Risk Weighted Assets (RWA) based on both the local regulatory requirement as set out by CBSL as well as on the basis set out by the Prudential Regulatory Authority (PRA) of the United Kingdom. Growth of the balance sheet is subject to RWA limits on the PRA basis, which are set and monitored by the Regional Office. Assets, Liabilities and Capital Management (ALCM) monitors growth against these limits and works closely with the Businesses to ensure that any increased growth meets with the expected returns on such growth.

All growth measures as targeted in the Annual Operating Plan (AOP) are reviewed in line with impact to Capital Adequacy Ratio (CAR) limits set by CBSL. Any remittance of profit to Regional offices is evaluated in terms of impact to CAR. Further, exchange rate fluctuations to a maximum of 20% are taken into account when forecasting CAR, which is carried out on a monthly basis. HSBC Sri Lanka will ensure that all business growth and profit remittances are carried out in full compliance with the prudential limits set by CBSL, while ensuring sufficient capital to absorb the impact of a 20% movement in foreign exchange rates. The minimum expected CAR will ensure optimal Single Borrower Limits, optimal Deposit Insurance fee levels and also ensure ability to continue Derivative Trading activity.

HSBC Group policy is to ensure compliance to the regulatory frameworks of the countries in which it operates and will ensure that business growth, profit remittance and potential capital infusion are managed in line with the same.