

NATIONAL RESERVE BANK OF TONGA

Prudential Statement No.11 *Revised 2012*

FOREIGN EXCHANGE RISK MANAGEMENT

Introduction

1. This statement is issued in terms of Section 15(3) of the Financial Institutions Act, 2004.
2. An essential part of the Reserve Bank's responsibility for the supervision of Licensed Financial Institutions (LFIs) is to ensure that each LFI's management and Board of Directors fully understands and maintains effective control over the risks inherent in each aspect of its operations. A LFI must take effective steps to identify, monitor and manage foreign currency risks within prudent limits set by the board, having regard for the nature of its business, the capital supporting its local operations and the various applicable regulatory requirements.
3. This statement outlines out the Bank's expectations in relation to the management and control of risks arising from a LFI's foreign exchange activities, maximum limits and reporting requirements in relation to prudent management of Foreign Currency Exposures of LFIs.
4. This statement imposes limits in relation to total capital in Tonga, on the levels of Net Open Positions in Foreign Currencies and outlines out the Bank's expectations in relation to the management and control of risks arising from a LFI's foreign exchange activities. The statement is in two Parts. The first Part of the Statement outlines the limits imposed on LFI's net open positions in foreign currencies. The second Part of the Statement outlines the Reserve Bank's expectations in relation to the management of risks arising from foreign exchange activities. These principles are applicable to all LFIs and they are intended for use at both the consolidated and subsidiary level, if applicable, but their specific application will depend on the complexity and range of activities undertaken by individual LFIs.

Part 1: Outline of the proposed limit of Net Open Positions in Foreign Currency

1. LFIs are required to comply with the Reserve Bank's maximum limits in relation to total capital in Tonga, as set out in this Statement, and are expected to remain within the LFI's own policy and limits where these are more conservative. Compliance with the Statement and limits in relation to total capital in Tonga will be monitored by the Reserve Bank and may be reviewed by the LFI's external auditors at the Reserve Bank's request pursuant to section 23(3) of the Financial Institutions Act 2004.
2. Total capital in Tonga for the purposes of the limits is measured as the amount reported in the bank's latest **Monthly** Capital Ratio Return to the Reserve Bank on **FID 1_10**. Where total capital in Tonga has been reduced by a material amount since the **month**-end reporting date, LFIs will be required to reduce the total capital figure for calculation of exposure limits accordingly, and advise the Reserve Bank of details.

3. Where compliance with the Statement and limits is not considered to be satisfactory, or lower limits are considered by the Reserve Bank to be necessary in view of the circumstances of a particular LFI, the limits may be mandated by the Reserve Bank pursuant to its powers under the Financial Institutions Act 2004.

Measurement of Net Open Foreign Currency Positions

4. The Reserve Bank is adopting an internationally agreed supervisory approach to the measurement of Foreign Currency Open Positions against the local currency, including both on and off balance sheet positions.
5. A single currency net open position is defined as the Tongan Pa'anga equivalent amount of the net sum of all on and off balance sheet spot and forward positions in that currency at the end of the trading day, for the Tongan operations of the LFI. That position may be either net "long" (net asset or net purchase or receivable position) or net "short" (net liability or net sale or payable position).
6. An overall foreign currency net open position is measured as the greater of either:
 - a. The sum of the Tongan Pa'anga equivalent amount of each currency with a net long position at the end of the day; or
 - b. The sum of the Tongan Pa'anga equivalent amount of each currency with a net short position at the end of the day.
7. Accrued interest and accrued expenses receivable or payable in the currency must be included when calculating currency positions. In general, currency positions include all transactions or obligations for which a receipt or payment in a foreign currency is reasonably certain to occur, such as guarantees that are certain to be called and are likely to be irrecoverable. Where a LFI has a long term or 'structural' asset or liability position in a foreign currency, the LFI may discuss and agree with the Reserve Bank on the appropriate reporting treatment, taking into account the circumstances.

Limits on Net Open Positions in Foreign Currencies

8. Each LFI is required to provide the Reserve Bank with a copy of its internal board approved, or in the case of a foreign owned LFI the policy applicable to the LFI's operation in Tonga, policy and limits on intra-day and end of day foreign currency open positions and the means by which those positions are monitored, and to provide an update each time the internal policy or limits change.
9. LFIs are required to monitor and manage end-of-day foreign currency positions on a daily basis, to comply with the limits set out in paragraph 10 below. At this stage no formal limits are being imposed on intra-day positions in foreign currencies and each LFI is expected to manage its intra-day position in a prudent manner.
10. Overnight Net open positions limits measured on the above basis at the end of each day shall not exceed:
 - a. For Single Currency Net Open Positions 12.5% of total capital in Tonga; and

- b. For Overall Foreign Currency Net Open Positions 25% of total capital in Tonga.
11. LFIs are expected to remain within their internal foreign currency position limits where they are lower than the Reserve Bank limits, and to advise the Reserve Bank accordingly, if increased internal limits have been approved by its Head Office or Board of Directors.

Reporting of Net Open Foreign Currency Positions

12. LFIs should report their foreign currency positions to the Reserve Bank on a monthly basis on monthly FID 1_3 “Foreign Currency Exposure”. The Reserve Bank may require more frequent reporting when a LFI’s foreign currency positions liquidity if appropriate.

Part 2: Principles for Controlling and Monitoring Foreign Exchange and Settlement Risk

1. In general, foreign exchange risk arises from two factors: currency mismatches in a LFI’s assets and liabilities (both on and off-balance sheet) and currency cash flow mismatches. Such risk continues until the foreign exchange position is covered. This risk may arise from a variety of sources such as foreign currency retail accounts and retail cash transactions and services, foreign exchange trading, investments denominated in foreign currencies and investments in foreign companies.
2. Managing foreign exchange risk is a fundamental component in the safe and sound management of all LFIs that have exposures in foreign currencies. It involves prudently managing foreign currency positions in order to control, within set parameters, the impact of changes in exchange rates on the financial position of the LFI. The frequency and direction of rate changes, the extent of the foreign currency exposure and the ability of counterparts to honour their obligations to the LFI are significant factors in foreign exchange risk management. Apart from counterparty default, foreign exchange settlement failures may arise from operational problems, market liquidity etc. The LFI’s exposure to this risk equals the full amount of the currency purchased and lasts from the time a payment instruction for the currency sold can no longer be cancelled unilaterally until the time the currency purchased is received in finality. It should be noted that foreign exchange settlement risk has more to do with the size and duration of the exposure as opposed to the probability of the occurrence of an actual loss.
3. Although the particulars of foreign exchange risk management will differ among LFIs depending upon the nature and complexity of their foreign exchange activities, a comprehensive foreign exchange risk management program requires:
 - a. Effective oversight by the Board of Directors (Board) and Senior Management.
 - b. Sound and prudent foreign exchange risk management policies; and
 - c. Appropriate and effective foreign exchange risk management and control procedures.

The Role of the Board of Directors

4. Effective oversight by the LFI's Board, or the appropriate offshore executive(s) in the case of a foreign bank branch, and senior management is critical for sound foreign exchange risk management practices. The Board is ultimately responsible for its exposure to foreign exchange risk and the level of risk assumed. The Board needs to ensure that any foreign exchange risk management policy developed by management adequately puts processes and procedures in place to measure, manage and control all aspects of foreign exchange risk. To this end, the Board should at a minimum:
 - a. Review and approve foreign exchange and settlement risk management policies and procedures. This review should occur at least once a year;
 - b. Set limits and risk tolerances. Limits should be reviewed at least annually, including those in relation to the volatility of the currencies, large exposures to counterparties and changes in the credit worthiness of counterparties;
 - c. Ensure that there is an independent review/audit of the foreign exchange operations and that the scope and frequency of the programme is appropriate to the foreign exchange and settlement risks;
 - d. Ensure the selection and appointment of qualified and competent management to administer the foreign exchange function; and
 - e. Review and assess foreign exchange risk reports to ensure that the nature and size of exposure are maintained at prudent levels and are consistent with available capital.

The Role of Senior Management

5. The LFI's procedures for managing foreign exchange risk should be commensurate with the range and scope of its activities. The management of each LFI is responsible for managing and controlling the exposure to foreign exchange risk in accordance with the foreign exchange risk management program. Although specific foreign exchange risk management responsibilities may vary across LFIs, large and/or complex LFIs should have risk management committees responsible for the design and administration of their foreign exchange risk management programmes. Senior management should at a minimum:
 - a. Develop and document appropriate foreign exchange and settlement risk management policies for approval by the Board;
 - b. Ensure that foreign exchange risk is managed and controlled within the foreign exchange risk management program. Particular attention should be paid to identifying the risks inherent in new services and products and establishing adequate procedures and controls before start-up;

- c. Develop and implement techniques that will accurately and continually measure the LFI's exposure to foreign exchange risk and its foreign exchange gains and losses;
- d. Have clear procedures for measuring and managing exposures to individual counterparties across the group;
- e. Implement an appropriate accounting and management information system that can aggregate foreign exchange risks and exposures arising from the operations of various business functions;
- f. Develop a framework of limits to control foreign exchange risk exposures for differing levels of seniority for both management and traders;
- g. Ensure effective segregation of duties between trading, risk measurement and monitoring, settlement and accounting functions;
- h. Establish and implement procedures governing the conduct and practices of foreign exchange traders;
- i. Provide training to all staff involved in the foreign exchange management process;
- j. Develop lines of communication to ensure the timely dissemination of the foreign exchange policies and procedures to all individuals involved in foreign exchange activities and the foreign exchange risk management process;
- k. Develop procedures for informing key counterparties when significant operational problems arise;
- l. Develop a Contingency Plan and carry out stress testing; and
- m. Report comprehensively on foreign exchange risk activities to the Board based on the frequency prescribed by the Board. The Board should be advised promptly of large losses arising from foreign exchange risk or the possibility of such losses.

Foreign Exchange Risk Management Policies

- 6. Policies should set out the objectives of the LFI's foreign exchange risk management strategy and the parameters within which this strategy is to be controlled. These policies should include:
 - a. A statement of risk principles and objectives governing the extent to which the LFI is willing to assume foreign exchange risk;
 - b. Explicit and prudent limits on the LFI's exposure to foreign exchange risk;
 - c. Clearly defined levels of delegation of trading authorities; and
 - d. A contingency plan and a framework for stress testing.

Objectives

7. Each LFI needs to decide in the context of its foreign exchange risk tolerance what are the objectives of its foreign exchange risk management program. This tolerance should not be assessed in isolation since it will vary with the extent of other risks (for example credit risk, liquidity, interest rate risk, operational risk) and the adequacy of its capital to absorb potential losses. The aim of the foreign exchange risk management is not necessarily to completely eliminate the LFI's exposure to changes in exchange rates or the size or duration of settlement exposures, but to minimize the impact of adverse occurrences that could result in financial loss.

Foreign Exchange Limits

8. Each LFI needs to establish explicit and prudent foreign exchange limits, and ensure that the level of its foreign exchange risk exposure does not exceed these limits. Where applicable, these limits, applied at consolidated and subsidiary levels, need to cover:
 - a. The currencies (and maturities) in which the LFIs can incur exposure;
 - b. The level of foreign currency exposure that the LFI is prepared to assume as a market maker or on behalf of its customers;
 - c. The credit risk limitations on the LFI's counterparties and intermediaries; and
 - d. The permissible size of contracts with individual counterparties.
9. Foreign exchange risk limits need to be set within the LFI's overall risk profile. Authorised currencies will normally include currencies in which the LFI may be called on to settle foreign exchange transactions. These are usually the currencies in which the LFI or its customers conduct business.
10. Limits on foreign exchange exposure should reflect both the specific foreign currency exposures that arise from daily foreign currency dealing or trading activities (transactional positions) and those exposures that arise from the overall asset/liability infrastructure, both on and off-balance sheet (structural or translational positions).
11. The establishment of aggregate foreign exchange limits that reflect both foreign currency dealing and structural positions help to ensure that the size and composition of both positions are appropriately and prudently managed and controlled and do not overextend a LFI's overall foreign exchange exposure. Usually, risk limits are established in terms of a relationship between the foreign exchange position and earnings or capital, or in terms of foreign exchange volume, such as total dollars or numbers of transactions.
12. Foreign exchange settlement failures can arise from counter party default. It is crucial, therefore, that prudent limits to control the settlement risk of individual counterparties are in place. Counter parties should be subjected to a credit evaluation to determine the maximum exposure that the LFI is willing to accept. Limits should be based on

the level of credit risk that is prudent and should not be set at an arbitrary, high level just to facilitate trading with counterparties.

13. Although the overall assessment of foreign exchange counterparties is an integral component of any foreign exchange operation, this may be conducted by the LFI's credit risk management function, thus obviating the need for separate counterparty assessment by the foreign exchange operations. Counterparty settlement limits should be subject to the same procedures used for determining limits on other exposures of similar size and duration to the counter party. Additionally, any planned excesses of settlement limits should be subject to approval by the appropriate credit management personnel in advance of the excess occurring.
14. All types of foreign exchange and settlement risks limits need to be reassessed on a regular basis to reflect potential changes in exchange rate volatility, the LFI's overall risk philosophy and risk profile.

Delegation of Authority

15. Clearly defined levels of delegated authority help to ensure that foreign exchange positions do not exceed the limits established under the LFI's foreign exchange risk management policies. Developing a framework of limits to control foreign exchange risk exposures should be established for differing levels of seniority for both management and traders. Authorities may be absolute, incremental or a combination thereof, and may also be individual, pooled, or shared within a committee.
16. The delegation of authority needs to be clearly documented, and must include at a minimum:
 - a. The absolute and/or incremental authority being delegated;
 - b. The units, individuals, positions or committees to whom authority is being delegated;
 - c. The ability of recipients to further delegate authority; and
 - d. The restrictions, if any, placed on the use of delegated authority.
17. The extent to which authority is delegated will vary among LFIs according to a number of factors including:
 - a. The LFI's foreign exchange risk philosophy;
 - b. The size and nature of a LFI's foreign exchange operations; and
 - c. The experience and ability of the individuals responsible for carrying out the foreign exchange risk management activities.

Contingency Planning and Stress Testing

18. Contingency planning should be an integral part of LFI's foreign exchange and settlement risks management processes. Each LFI should:
 - a. Document in its Business Continuity Plan general procedures and processes for the continuity of its foreign exchange operations in the event that the main area becomes unusable;
 - b. Negotiate service level agreements with its vendors to the extent that these vendors provide services that are critical to the LFI's foreign exchange and settlement operations;
 - c. Incorporate in the contingency plan specific procedures for reacting in a prompt and balanced manner to failed transactions or other settlement problems to:
 - i. ensure timely access to key information, such as payments made, received or in process; and
 - ii. obtain information and support from correspondent institutions; and
 - d. Test the plan periodically to assess its adequacy.
19. LFIs should measure their vulnerability to loss arising from their foreign exchange operations and liquidity squeeze under stressed market conditions. They should evaluate their capacity to withstand stressed situations in terms of profitability, liquidity and capital adequacy. At a minimum, the stress tests should:
 - a. Cover major currencies to which the LFI is exposed;
 - b. Assess the effects of large exchange rate movements, including a sharp reduction in liquidity, of individual currencies; and
 - c. As it relates to settlement risk, include settlement delay, individual counterparty failures and disruption to the payment system.
20. The stress scenarios should be commensurate with the nature of the LFI's portfolios and risks involved. Additionally, LFIs should take into account the stress-testing results when evaluating their capital adequacy and reviewing their business strategies, policies and limits for foreign exchange risk.

Foreign Exchange Risk Management

21. Each LFI engaged in foreign exchange activities is responsible for developing, implementing and overseeing procedures to manage and control foreign exchange risk and settlement risk in accordance with its foreign exchange risk management policies. These procedures should be at a level of sophistication commensurate with the size, frequency and complexity of the LFI's foreign exchange activities. Foreign exchange risk management procedures need to include, at a minimum:

- a. Accounting and management information systems to measure and monitor foreign exchange positions, foreign exchange risk, settlement risk and foreign exchange gains or losses;
- b. Controls governing the management of foreign currency activities; and
- c. Independent inspections or audits.

Risk Measurement

- 22. Managing foreign exchange risk requires a clear understanding of the amount at risk and the impact of changes in exchange rates on this exposure. At a minimum, each LFI should have in place monitoring and reporting techniques that measure:
 - a. All foreign exchange risk by maturity, on both a gross and net basis;
 - b. The net spot and forward positions in each currency or pairings of currencies in which the LFI is authorised to have exposure;
 - c. The aggregate net spot and forward positions in all currencies;
 - d. The period of irrevocability for each currency¹;
 - e. Transactional and translational gains and losses relating to trading and structural foreign exchange activities and exposures; and
 - f. Limit excesses and unusual settlement activity.
- 23. To measure and manage their foreign exchange exposures, LFIs need to be certain of the unilateral cancellation deadline as operational and even legal arrangements typically result in payment orders becoming effectively irrevocable significantly before the time of payment. LFIs need to know the latest time the correspondent can guarantee to satisfy a cancellation request and, therefore, the cancellation cut-off time should be stipulated in the terms and conditions of a correspondent's service agreement.
- 24. A LFI's minimum foreign exchange settlement exposure at a specified time is equal to the value of all outstanding trades where payment is irrevocable plus any known failed receipts. Since the irrevocable period can last several days, this minimum measure of exposure may be equal to several days' worth of trades. Consequently, the maximum settlement exposure at a specified time equals the minimum exposure plus the value of all uncertain receipts at that time. To effectively measure and control current and future foreign exchange exposures, it is critical that the LFI recognises the

¹ The amount of risk is a function of the magnitude of potential exchange rate changes and the size and duration of the foreign exchange exposure. The duration of the foreign exchange exposure starts when a payment order for the currency sold can no longer be recalled or cancelled with certainty i.e. the unilateral payment cancellation deadline and lasts until the currency purchased is received with finality (this interval is known as *the period of irrevocability*). It is critical, therefore, that LFIs are able to accurately measure their exposure to foreign exchange risk, including settlement risk.

changing status and hence the changing potential settlement exposure of each of its trades during the settlement process.

25. LFI should record and report accurate and timely information on exchange transactions and currency transfers. This may be achieved through an effective accounting and management information system that should record and measure its foreign exchange exposures as well as the impact of potential exchange rate changes on the LFI.

Control of Foreign Exchange Activities and Settlement

26. Controls over foreign exchange activities provide safeguards to protect against potential losses by ensuring that unauthorised exposure does not occur and that foreign exchange activities are conducted according to the policies and procedures.
27. Although the controls over foreign activities will vary among LFIs depending on the nature and extent of their foreign exchange activities, the key elements of any foreign exchange control program are well-defined procedures governing:
 - a. Organizational controls to ensure that there exists a clear and effective segregation of duties between those persons who:
 - i. Initiate foreign exchange transactions; and
 - ii. Are responsible for operational functions such as arranging prompt and accurate settlement, and timely exchanging and reconciliation of confirmations, or account for foreign exchange activities.
 - b. Procedural controls to ensure that:
 - i. Transactions are fully recorded in the records and accounts;
 - ii. Transactions are promptly and correctly settled; and
 - iii. Unauthorised dealing is promptly identified and reported to management.
28. Controls to ensure that activities are monitored frequently against the LFI's foreign exchange risk, counterparty and other limits and that excesses are reported. Moreover, each LFI needs to ensure that its foreign exchange traders are subject to a written code of conduct governing foreign exchange dealing. Such a code of conduct should include guidance on trading with affiliated entities, the personal foreign exchange trading activities of foreign exchange traders, and foreign exchange trading relationships with foreign exchange and money market brokers with whom the LFI deals. Each LFI should ensure that these guidelines are periodically reviewed with all foreign exchange traders.
29. To control risk, LFIs may use netting through legally binding netting arrangements that permit offset trades against each other so that only the net amount in each currency is paid or received by each institution. To allow exposures to be measured on a net basis, the legal basis for netting arrangements should be sound. In particular, LFIs should ensure that a netting arrangement is legally enforceable in all relevant jurisdictions. LFIs that use informal payment netting - i.e. where there is no formal netting contract between the counterparties - for instance, the back offices of each counterparty confer by telephone before settlement and agree to settle only the net amount of the trades falling due should ensure that they fully understand and

appropriately manage the legal, credit, and liquidity risks since there may not be a sound legal basis underpinning such procedures. To take advantage of risk reducing opportunities, LFI's should establish procedures for identifying netting opportunities.

Independent Reviews/Audits

30. Independent reviews/audits are a key element in managing and controlling the foreign exchange risk management programme. Each LFI should use them to ensure compliance with, and the integrity of, the foreign exchange policies and procedures. Independent reviews/audits should, at a minimum, and over a reasonable period of time, test the LFI's foreign exchange risk management activities in order to:
 - a. Ensure adherence to foreign exchange management policies;
 - b. Ensure effective management controls over foreign exchange positions, including effective segregation of duties;
 - c. Ensure that operating procedures are adequate to minimise settlement risk;
 - d. Ensure accurate and complete recording of transactions;
 - e. Ensure the adequacy and accuracy of management information reports regarding the foreign exchange risk management activities; and
 - f. Ensure that personnel involved in foreign exchange risk management are provided with accurate and complete information about the foreign exchange risk policies and risk limits and positions and have the expertise required to make effective decisions consistent with the foreign exchange risk management policies.
31. Assessments of the foreign exchange risk operations should be presented to the LFI's Board of Directors, or the appropriate offshore executive(s) in the case of a foreign bank branch, on a timely basis for review. Internal auditors should draw to management's attention promptly irregularities in trading patterns or trends, frequent excesses of limits or issues concerning controls in the trading area.

Compliance with Prudential Statement No. 11

32. This statement is effective from 1 May 2012. Non-compliance with the requirements of this Prudential Statement will be subject to corrective actions as provided under section 33 of the Financial Institutions Act 2004 and the administrative penalties outlined in Prudential Statement No.3 Administrative Penalties.

National Reserve Bank of Tonga
March 2012