

Contents of the Certificate Course of Treasury and Foreign Exchange Operations

Learning Outcomes

Upon completing this course, participants will be able to

- gain an understanding on operations of a treasury department,
- understand how different financial markets operate along with the different products and their characteristics,
- understand the concept on ‘Asset and Liability Management’ and be familiar with relevant tools,
- identify ways of mitigating risks related to treasury function, and
- gain familiarity with regulatory and compliance requirements of treasury operations.

Content Coverage	
Resource person	Mr. Yasantha Jayasinghe, Former Executive Director, Head of FX and Rates Trading, Standard Chartered Bank PLC
<p>2024.03.09</p> <p>(08.30 am – 10.30 am)</p>	<p>Module 1- Introduction to Treasury</p> <ul style="list-style-type: none"> • Recognise the role of the treasury within the bank - Treasury's role as a profit center • Identify the tools used by the Treasury to achieve its goals • Identify the organisational structure and functions of Treasury (i.e., Treasury Front Office, Middle Office, and Back Office) • Internal Controls of Treasury Function • Requirement for control of dealing and best practices in dealing: Individual dealer limits, per deal limits, product limits, dealing room limits, Stop Loss Limits • Different types of limits (internal & external): Open Position Limits: Daylight, Overnight, Asset Position Limit, Intraday Limits. • Identify key factors in funds management • Liquidity and Cash Flow Management - CRR. • Payment & Settlement Systems, SLIPS, RTGS, SWIFT • Dealing Room Operations: Nostro / Vostro– Open Currency Position / Cash Position by Dealers • Aligning treasury strategy with overall organisational goals • Ethics/Best Practices for Dealers
<p>2024.03.09</p> <p>(10.45 am – 12.45 pm)</p> <p>01.30 pm – 03.30 pm)</p>	<p>Module 2 –Financial Markets</p> <p>Overview of the global financial markets (major markets, recent trends, Gold/oil, outlook)</p> <p><u>Money Market</u></p> <ul style="list-style-type: none"> • Define the money market and describe the role of the money market • Introduction to different money market products • Describe the characteristics of main money market instruments: deposits, Certificate of Deposits, bankers’ acceptances, T-bills, Commercial Papers, and

	<p>Repos in terms of issuers/investors, methods of issue, transferability, and whether securitised or not.</p> <ul style="list-style-type: none"> • Define and distinguish difference between domestic, foreign, and Euro money markets • Calculate the value of each type of instrument using quoted price in local market • Calculate cash flows of a repo transaction based on the value of the collateral and agreed hair cut/initial margin. • Define general collateral (GC) and specials with change in Repo rates • Day count conversion in different markets and different products
<p>2024.03.09 (03.45 pm – 05.45 pm)</p> <p>2024.03.10 (08.30 am – 10.30 am)</p> <p>(10.45 am – 12.45 pm)</p> <p>(01.30 pm – 03.30 pm)</p>	<p>Module 2 –Financial Markets (contd.)</p> <p><u>Foreign Exchange Market</u></p> <ul style="list-style-type: none"> • Understand the organisation of the foreign exchange market • Define the exchange rate and ways of quoting the exchange rate (Direct quote and indirect quote) • Explain the terminology <ul style="list-style-type: none"> ◦ Base currency and counter currency ◦ Trade date and value date ◦ SPOT/TOM/CASH/SPOT NEXT/FORWARD ◦ FX SWAPS • Understand the concept of two-way quote (bid and offer/ask) • Apply a bid/offer exchange rate as price-maker and price-taker to convert either a base or quoted currency amount • Describe the determinants of exchange rate • Explain different exchange rate regimes • Calculate cross currency rates • Calculate and explain the reciprocal rate of an exchange rate • Calculate the forward exchange rate given the spot exchange rate and the interest rates • Explain the trading mechanisms (e-platforms, through voice broker, and direct dealing) • Compare and contrast characteristics of different financial instruments
<p>2024.03.10 (03.45 pm – 05.45 pm)</p>	<p>Module 2 –Financial Markets (contd.)</p> <p><u>Practical aspects of the FX market</u></p> <ul style="list-style-type: none"> • Continuous market - holiday convention, value dates • Cross Currency - Base currency, quoted currency - direct, indirect

	<ul style="list-style-type: none"> • Interbank market - maker, taker • Two-way quotes • SPOT/FWDs • Trading on two-way quotes • Quoting to customers • Position - NOP, currency position • realised profit, unrealised profit - mark to market, average cost • Cross currency rates - deriving from standard quotes • Fundamental/technical analysis • USD/LKR market - CBSL, Trading process • Deriving FWD price using interest rates and SPOT - FWD premium/discount • SWAPs • Dealing on SWAPs
Resource person	Mr. Yasantha Jayasinghe, Former Executive Director, Head of FX and Rates Trading, Standard Chartered Bank PLC
<p>2024.03.17</p> <p>(08.30 am – 10.30 am)</p> <p>(10.45 am – 12.45 pm)</p> <p>(01.30 pm – 03.30 pm)</p> <p>(03.45 pm – 05.45 pm)</p>	<p>Module 3 - Asset & Liability Management (ALM)</p> <ul style="list-style-type: none"> • Define the meaning and general concepts of ALM • Elaborate on the impact of main risk factors on the asset and the liability side of the Balance sheet • Define Treasury’s Role in ALM and ALM’s role as a management tool in the organization • Understand the role of ALCO and the ALCO process • Understand the importance of an efficient organisational structure and its impact on ALM and describe the organisational and infrastructure set up of ALM in a bank: Parameters, risk identification, risk measurement, risk management, and related tolerance levels • Understand the importance of ALM information systems (Management Information System, Information availability, and accuracy) • Understand the use of Maturity Gap Analysis and management: interest and duration mismatches, Asset and liability management techniques • Explain the concept of funds transfer pricing as a mean to ensure that funding and liquidity costs & benefits are transparently allocated to respective businesses and products • Define liquidity and its importance to a bank • Differentiate between managing liquidity with assets and managing liquidity with liabilities • Recognise the cost associated with maintaining liquidity • ALM function from a Practical and Performance Oriented Perspective

Resource person	Mr. Nilanka Abeywickrama, Head of Treasury Markets, Standard Chartered Bank PLC
<p>2024.03.23 (08.30 am – 10.30 am)</p>	<p>Module 2 –Financial Markets (contd.)</p> <p><u>Interest Rate</u></p> <ul style="list-style-type: none"> • Explain the concept of interest rate • Distinguish between nominal and real interest rates • Identify the determinants of interest rates • Understand the principles of the time value of money and net present value (NPV) • Calculate present value and future value using the techniques of discounting and compounding • Calculate simple interest using different day count and annual basis conventions • Fix same-day, next-day, spot, and forward value dates and maturity dates following the modified following business day convention and end-end rule. • Convert interest rates and yields between the money market basis and bond basis • Convert interest rates and yields between annual and semi-annual compounding frequencies • Calculate effective annual rate • Calculate a forward-forward rate from two mismatched cash rates • Calculate the value of a discount-paying money market instrument from its discount rate (straight discount) and convert a discount rate directly into a true yield • Plot a yield curve, describe the shape of the yield curve, describe the changes in the shape of the yield curve • Explain pure expectation theory, liquidity preference theory, and market segmentation hypothesis explaining the shape of the yield curve
<p>2024.03.23 (10.45 am – 12.45 pm)</p> <p>(01.30 pm – 03.30 pm)</p> <p>(03.45 pm – 05.45 pm)</p>	<p><u>Fixed Income Securities Market</u></p> <ul style="list-style-type: none"> • Define a fixed income security in terms of its terminology: price, yield, face value, coupon rate, accrued interest, yield-to-maturity, yield curve, etc. • Identify different types of issuers and investors of bonds • Understand and explain features of different types of fixed income securities; zero coupon, fixed coupon, floating rate notes, mortgage-backed securities (MBS), and asset backed securities (ABS) • Calculate the price, yield, coupon, time to maturity, face value, yield-to-maturity, etc., relating to fixed income securities, where all other parameters are given. • Describe the assumptions of yield to maturity. • Describe the relationship between price and yield

<p>2024.03.30 (08.30 am – 10.30 am)</p> <p>(10.45 am – 12.45 pm)</p> <p>(01.30 pm – 03.30 pm)</p>	<ul style="list-style-type: none"> • Describe the relationship between coupon, maturity, and price • Calculate and interpret duration and modified duration • Calculate the change of value of a bond for a given modified duration and a level of yield change. • Understand the zero-coupon yield curve. • Describe what happens to Fixed Income Securities in following events: <ul style="list-style-type: none"> o Payment of an income such as coupon o Default o Failure to deliver collateral • Identify the risk of investing in bonds; market risk (interest rate risk/duration risk), credit risk, reinvestment risk
<p>Resource person</p>	<p>Mr. Nilanka Abeywickrama, Head of Treasury Markets, Standard Chartered Bank PLC</p>
<p>2024.03.30 (03.45 pm – 05.45 pm)</p> <p>2024.03.31 (08.30 am – 10.30 am)</p> <p>(10.45 am – 12.45 pm)</p>	<p>Module 4 – Financial Derivative Markets & Products</p> <p><u>Introduction</u></p> <ul style="list-style-type: none"> • Explain the characteristics of derivatives and underlying transactions • Distinguish between forward commitments and contingent claims • Explain the differences between exchange traded derivatives and over the counter derivatives and their risks • Identify whether there is any arbitrage opportunity and how to trade on arbitrage <p><u>Forwards</u></p> <ul style="list-style-type: none"> • Understand the basic characteristics of a forward and forward-forward rates • Explain the mechanism of a forward-forward loan or a deposit • Identify the interest rate risk of a forward-forward loan or a deposit • Describe FRA as a derivative of forward-forward instrument • Explain the mechanics of a FRA and related terminology. • Calculate the price of FRA • Describe how to use a FRA to hedge interest rate risk while identifying the correct contract, decide whether to buy or sell a FRA • Identify the settlement rate and calculate the settlement amount <p><u>Future contracts</u></p> <ul style="list-style-type: none"> • Understand the basic characteristics of a futures contract • Explain the similarities and differences of forwards and futures contracts • Explain how futures transactions are settled and functions of the futures exchange and the clearing house • Describe the margining procedure and calculate the variation margin • Calculate the price of a futures contract using cost and carry model • Calculate the profit or loss of a futures contract

<p>(01.30 pm – 03.30 pm)</p> <p>(03.45 pm – 05.45 pm)</p>	<ul style="list-style-type: none"> • Explain how to use futures contract to hedge an existing position • Understand the risks of futures contracts • How to close and calculate the profit or loss of a futures contract <p><u>Option contracts</u></p> <ul style="list-style-type: none"> • Define an option, call options, and put options • Compare and contrast option contracts with other derivative instrument • Define strike price, the underlying, premium, and expiry • Distinguish between European, American, Asian, and Bermudian style options • Explain the pay-off profile of an option contract • Define intrinsic value and time value of the option • Identify the main determinants of an option premium and explain how those determinants affect the option premium • Define option Greeks- Delta, Gamma, Theta, Rho, and Vega • Explain the meaning of in the money (ITM), at the money (ATM), and out of the money (OTM) relating to options and identify risks of option contracts • Put/Call parity • Understand option strategies such as straddles, strangles, etc. • Explain how options can be used to hedge an existing position <p><u>Swaps</u></p> <ul style="list-style-type: none"> • Explain the terminology related to SWAP transactions • Describe the mechanics of Interest Rate Swap (IRS) • Explain the terminology related to IRS • Differences and interpretations of Negative and Positive Swap points • Select the correct IRS contract to hedge interest rate risk • Currency/FX SWAPS and calculation of SWAP points • Applicability of SWAPS in cash flow management
<p>Resource person</p>	<p>Mr. Yasantha Jayasinghe, Former Executive Director, Head of FX and Rates Trading, Standard Chartered Bank PLC</p>
<p>2024.04.07 (08.30 am – 10.30 pm)</p>	<p>Module 5 - Risk Management</p> <ul style="list-style-type: none"> • Explain various types of risks faced by banks and treasury • Describe types of market risk; interest rate, exchange rate, equity, currency, and commodity • Describe the Risk management framework relating to Market Risk, Liquidity Risk, Interest Rate Risk • Explain, calculate, and interpret market risk measures such as Value at Risk, Expected Shortfall • Explain the limitations of above market risk measures • Understand the default risk

<p>(10.45 am – 12.45 pm)</p>	<ul style="list-style-type: none"> • Describe the ways of managing credit risk/settlement risk relating to treasury operations and explain the limit structures • Understand the credit risk mitigation techniques such as collaterals, cash settlements and netting • Describe the use of documentation such as MRA/GMRA, and ISDA • Define liquidity risk • Identify the importance of liquidity risk management in banks • Define operational risk relating to Treasury operations and explain the process of operational risk management • Identify and explain the sources of operational risk; system, people, processes and external events • Understand the importance of Business Continuity Plan (BCP) for Treasury operations and as a part of overall bank’s BCP • Techniques for the evaluation of risk • Risk management approaches • Risk reporting and the feedback loop • Interrelationships between multiple treasury risks e.g., interest rate and foreign exchange. • Role of treasury in supporting the business in the identification of other key non-treasury risks • An overview of Integrated Risk Management System • Segregation of duties • Roles, responsibilities, and reporting of front office, middle office, and back office • Dealing room physical and system controls
<p>Resource person</p>	<p>Mr. D Jayathu Perera, Senior Assistant Director, Bank Supervision Department, CBSL</p>
<p>2024.04.07 (01.30 pm – 03.30 pm)</p> <p>(03.45 pm – 05.45 pm)</p>	<p>Module 6 - Regulations and Compliance</p> <ul style="list-style-type: none"> • Treasury/Investment Policies, Operational Procedures, Guidelines, and Internal Controls • Ethics and Code of Conduct • Regulations on market conduct and treasury operations and regulatory framework • System for risk monitoring and controls, Limits framework • Systems for risk measurement and reporting • Policies on new products, services, and activities • Regulations on Liquidity risk and management • Regulations on foreign currency borrowings • Regulations on financial derivatives • KYC & CDR Rules and Provisions on Money Laundering

	<ul style="list-style-type: none">• BIS FX global code• Other regulations over Treasury operations• Sanctions or regulatory interventions
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