

---

# **Forex & Treasury Management (FTM)**

**Course Curriculum**

# FOREX & TREASURY MANAGEMENT (FTM)

## COURSE OBJECTIVE

This course covers foreign exchange market, money market, bond market operations and related financial products. It therefore analyses the international finance environment within which banks, other intermediaries and companies operate and how it affects their operations in treasury. Sound treasury management utilizes the right financial products and tools for minimizing risk. The course examines alternative strategies and techniques that can be employed to manage the risks associated with international business transactions and other treasury operations. It also provides an overview of the structure and key functions of the treasury. The emphasis is on developing skill sets which would be required for making sound financial decisions in an international context.

## LEARNING OUTCOMES

- Have a contextual appreciation of the changes taking place in the global financial market, the issues facing the corporate financial manager, the development of academic theory and of practice in explaining and managing the financial risk which these changes bring.
- Understand and conquer the complexities of FX and treasury management
- Be able to Solve integrated and practical treasury problem
- Identify and evaluate exchange rate risks facing domestic and multinational companies

- Apply and evaluate alternative methods for managing foreign exchange
- Be able to use forex derivatives to hedge forex risk
- Be able to structure the finances of foreign operations
- Be able to make international capital budgeting decisions
- Demonstrate the ability to manage cash and liquidity in multinational organisation
- Be able to make short term investment decisions
- Be able to use money market instruments, bond market instruments and manage interest risk using derivatives
- Be able to understand linkages between money market and forex market
- Demonstrate understanding of ethical and compliance issues

## **PAPERS AND SYLLABUS**

The course for Forex and Treasury Management shall be comprised of the following four modules

# MODULE 1

## 1. Introduction and Overview

- 1.1 International Financial Management
- 1.2 The International Financial Environment
- 1.3 The foreign exchange market
  - 1.3.1 Importance and development
  - 1.3.2 Organization and participation
  - 1.3.3 Features of Forex market
  - 1.3.4 Regulation- Roles of RBI and FEDAI
  - 1.3.5 Relevant provisions of FEMA

## 2. The International Monetary System

- 2.1 History of the International Financial System
- 2.2 Rise and Fall of the Bretton Woods
- 2.3 The Post-Bretton Woods System

## 3. The Determination of Exchange Rates

- 3.1 Purchasing Power Parity (PPP) -- Absolute and Relative Versions of PPP
- 3.2 The Real Exchange Rate - Nominal versus Real Exchange Rates
- 3.3 Expectation Hypothesis
- 3.4 The Fisher Effect
- 3.5 Interest Rate Parity (IRP)
- 3.6 Forex Rate Forecasting
- 3.7 The Balance of Payments (BOP) and impact of other economic factors on forex market.
  - be able to make international capital budgeting decisions
  - demonstrate the ability to manage cash and liquidity in multinational organisation
  - be able to make short term investment decisions
  - be able to use money market instruments, bond market instruments and manage interest risk using derivatives
  - be able to understand linkages between money market and forex market
  - demonstrate understanding of ethical and compliance issues

## **4. Forex Arithmetic**

- 4.1 Type of quotes Ready, Tom, Spot, Forward
- 4.2 Spot foreign exchange
- 4.3 Two way quote
- 4.4 Bid- Ask spread
- 4.5 Pips
- 4.6 Spot transaction making and settlement
- 4.7 ACI convention and quote interpretation
- 4.8 Quote style Direct quote, Indirect quote, American quote and European quote
- 4.9 Cross rate
- 4.10 Forward exchange rate quotation
- 4.11 Forward point determination
- 4.12 Premium or discount
- 4.13 Broken period forward rate
- 4.14 Forward cross Rate
- 4.15 Forex swap and their use.

## **5. Merchant Rates**

- 5.1 Merchant quotations determination
- 5.2 FEDAI regulation for merchant transactions
- 5.3 Merchant transactions rates-Base rate, cover rate, card rate, TT(buying and selling), Bill (buying and selling), TC (buying and selling ) CN (buying and selling)
- 5.4 NDD (Notional Due date)
- 5.5 NTP (notional Transit period)
- 5.6 crystallization of overdue export bills
- 5.7 crystallization of import bills.

## **6. International Finance Arbitrage**

- 6.1 Geographical arbitrage
- 6.2 Triangular arbitrage
- 6.3 Covered Interest Arbitrage.

## **7. Introduction to Currency derivatives**

### 7.1 Currency Forward definition and need

- 7.1.1 Type of forward contracts outright forward contract and option forward contract
- 7.1.2 Booking, cancellation, extension, rollover of forward contracts based on FEDAI Rules
- 7.1.3 Utilization of forward contracts
- 7.1.4 RBI guidelines for booking
- 7.1.5 Accounting

### 7.2 Currency Futures - definition and need

- 7.2.1 Currency future vs. currency forward
- 7.2.2 Currency future quotes interpretation- base currency, priced currency, contract size, tick size
- 7.2.3 Margin
- 7.2.4 Use of currency future for hedging
- 7.2.5 Use of currency future for speculation
- 7.2.6 Concept of Basis risk
- 7.2.7 Accounting

### 7.3 Currency Option definition and need

- 7.3.1 Call and Put option
- 7.3.2 Strike rate, buyer, writer, option premium, intrinsic value, time value, ITM, ATM, ITM
- 7.3.3 Currency option quotes interpretation-underlying currency, trading currency, contract size, and tick size
- 7.3.4 European style and American style
- 7.3.5 Use of currency option for hedging
- 7.3.6 Use of currency option for speculation
- 7.3.7 Corridor and participating forward
- 7.3.8 Option strategies
- 7.3.9 RBI guidelines
- 7.3.10 Accounting.

## **8. Forex Risk Management**

- 8.1 Currency Risk vs. Exposure
- 8.2 Management of economic exposure
- 8.3 Management of transaction exposure
- 8.4 Management of translation exposure
- 8.5 Accounting of transaction and translation exposure

## **9. Internal Hedging Techniques**

- 9.1 Pricing
- 9.2 Leading and Lagging
- 9.3 Matching
- 9.4 Netting

## **10. Valuation of Derivative Instruments and Arbitrage Strategies**

- 10.1 Valuation of currency future cost of carry model
- 10.2 Put call parity
- 10.3 Valuation of options- binomial tree model (portfolio replicating as well as risk neutral approach) and BSOPM
- 10.4 Arbitrage

## **MODULE 2**

### **11. Export Financing**

- 11.1 Pre-shipment financing (PCL & PCFC)
- 11.2 Post- shipment financing (FBP, FBD and FBN)
- 11.3 Forfeiting

### **12. Import regulations**

### **13. R-return, and Documentary credit**

### **14. Forex Rate Forecasting**

- 14.1 Fundamental analysis
- 14.2 Technical analysis

### **15. Foreign Direct Investments including Foreign Collaboration and Joint Ventures**

### **16. Financing the Multinational Corporation**

- 16.1 International Equity Markets
- 16.2 International Bond Markets
- 16.3 Currency Swaps characteristics and uses
- 16.4 International Portfolio Investment
- 16.5 International Capital Structure
- 16.6 International Capital Budgeting
- 16.7 Multinational working capital management
- 16.7 External Commercial Borrowing

## MODULE 3

### 17. Money market

- 17.1 Structure and role of global money market
- 17.2 Money market calculation
- 17.3 Money market Instruments (call money, term money, notice money, CP, CD, T-Bill, Repo and reverse repo , BRDS, IBPC, etc)
- 17.4 Money market derivatives (FRA, IRS, IRF, swaption , CAPS, Floors and collars)
- 17.5 Integration of money market and forex market
- 17.6 FIMMDA guidelines

### 18. Bond market

- 18.1 Structure and role of global bond market
- 18.2 Bond market products
- 18.3 Bond pricing and yield
  - 18.3.1 Clean and dirty price
  - 18.3.2 YTM, modified YTM, Yield to call, current yield, realized yield, horizon analysis
- 18.4 Bond and interest rate risk
  - 18.4.1 Macaulay duration
  - 18.4.2 Modified duration
  - 18.4.3 Effective duration
  - 18.4.4 Properties of duration
  - 18.4.5 Convexity
- 18.5 Bond pricing and spot and forward rate
- 18.6 Term structure hypothesis
- 18.7 Credit derivatives
  - 18.7.1 The basic concept
  - 18.7.2 Role and structure of credit derivatives
  - 18.7.3 Types of credit derivatives

- 18.7.4 CDS (credit default swap)
- 18.7.5 TRS (total return swap)
- 18.7.6 CSO (credit spread option)
- 18.7.7 Credit link notes
- 18.7.8 CDO (collateralized debt obligations)
- 18.8 Bonds with embedded option
- 18.9 Hybrid securities
  - 18.9.1 Floating rate notes
  - 18.9.2 Inverse floating rate note
  - 18.9.3 Indexed amortizing notes
  - 18.9.4 Interest differential notes
- 18.10 Securitization
  - 18.10.1 Concept and reasons for securitization
  - 18.10.2 Assets Backed Securities
  - 18.10.3 Mortgaged Based securities

## MODULE 4

### **19. Treasury Management**

- 19.1 Scope, objectives and functions of treasury
- 19.2 Treasury management in bank and corporate
- 19.3 Cost centre vs. profit centre treasury
- 19.4 Centralized vs. decentralized treasury
- 19.5 ALM
- 19.6 Liquidity management

### **20. Inter bank dealing and risk management**

- 20.1 Exchange position- component of exchange position, overbought, oversold and square
- 20.2 Nostro, Vostro, Loro and Mirror Accounts
- 20.3 Fund position vs. Exchange position
- 20.4 Front Office, Mid office and back office
- 20.5 Reconciliation and accounting
- 20.6 Dealing procedures
- 20.7 Open position and dealing limits overnight, daylight and aggregate
- 20.8 Mismatched position, Gap limits (IGL and AGL) and stop loss limits
- 20.9 Profit /loss booking
- 20.10 VAR
- 20.11 Credit risk, country risk, operating risk, market risk and implications of BASEL II
- 20.12 Regulation and supervision
- 20.13 FEDAI Rules
- 20.14 Guidelines for Internal control over forex business issued by RBI
- 20.15 Audit

## 21. Ethics and compliance dealing ethics and code of behavior

### Case study:

1. Asian financial crisis 1997
2. Argentina crisis of 2002
3. Japanese intervention in forex market
4. The Russian Ruble crisis 1998
5. Mexico peso crisis 1994
6. Tortilla prices and the Mexican peso PPP (2007)
7. Transaction exposure Lufthansa Corp (1985)
8. Carry trade and reverse carry trade
9. Treasury operations in SBI, BOI, BOB, PNB and ICICI bank
10. Treasury operations in IOCL, Ranbaxy, Infosys and RIL

### Duration of the Course:

| 400 Hours as follows |           |
|----------------------|-----------|
| Self Study           | 300 hours |
| Class room teaching  | 50 hours  |
| Case Study in Groups | 50 hours  |

### Fee of the Course

Rs. 25,000 including the evaluation fee