



CENTRAL BANK OF EGYPT
Egyptian Banking Institute

Fixed Income



Investment and Treasury



406-P26-CE-1



In-Class



16 hours

Course Description:

This course is designed for employees in bank dealing rooms, asset managers, corporate financial officers, and related professionals seeking to deepen their understanding of the bond market. Participants will learn to apply fixed income concepts, use money market instruments, demonstrate bond pricing and duration techniques, and utilize interest rate swaps for risk management. Through interactive lectures, case studies, and practical exercises, the course covers financial markets, money market instruments, bond pricing, duration, and derivatives, equipping participants with the skills to solve financial problems and design effective hedging strategies.

Target Audience:

This course is intended for employees working in dealing room in all banks, all asset managers as well as for corporate financial officers and for those in related fields who seek to expand their knowledge of the bond market.

Course Objectives:

- Apply fixed income concepts and time value of money principles to solve financial problems.
- Use money market instruments to perform calculations and evaluate banking applications.
- Demonstrate bond pricing and duration techniques to manage interest rate risk.
- Identify duration and hedging strategies to mitigate fixed income risks.
- Utilize interest rate swaps to design hedging strategies in the fixed income market.

Course Outline:

Module 1: Introduction to Fixed Income Instruments

- The financial markets.
- The Financial System.
- The key players in the Fixed Income market.

- Fixed Income Instruments.
- Risks associated with Fixed Income securities:
 - Credit Risks.
 - Market Risks.
 - Operational Risk.
- What is ALM?
- Time Value.
- Annuity Formula.
- Market maker versus market user.
- Impact of Compounding.
- Time Value of Money Exercises.

Module 2: Money Market Instruments

- Day count.
- Benchmark rates:
 - Simple Interest - interest due.
 - Simple Interest - Future value.
 - Simple Interest – Present value.
 - Simple Interest – Per annum Interest rate.
- Money market instruments.
- Interbank Market.
- Treasury Bills.
- Certificate of deposits.
- The Repo Market.
- Haircuts .
- Case Study: Uses of Money Market Instruments in Banking.

Module 3: Treasury Bills Secondary Market

- Introduction to Bond Market.
- Bonds characteristics.
- Conditions of Bond issue.
- Types of Bonds:
 - Zero Coupon Bonds.
 - Fixed Interest Bonds.



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- Convertible Bonds.
- Foreign Currency Bonds.
- Eurobonds.
- Green Bonds.
- Bond Quotation and Pricing.
- What is a Rating.
- Case Study: Managing Interest Rate Risk in Banking with Duration and Modified Duration.

Module 4: Fixed Income Market Risk Analysis

- Risks Associated with Fixed Income Securities.
- The Volatility of Bonds.
- Measures of bond price sensitivity.
- Duration:
 - Macaulay duration.
 - Calculation of Duration.
 - Interpretations of Duration.
 - Modified duration.
 - Dollar Duration.
- Uses of Duration.
- Duration Hedging.

Module 5: Derivatives & the Fixed income market

- Yield curves.
- Derivatives.
- Hedging.
- Speculation.
- Interest rate swap.
- The Swap Mechanism:
 - Coupon or Plain Vanilla Swaps.
 - Settlement calculation.
 - Interest rate Swap uses – Hedging.
- Case study: Interest rate swaps

Assessment Strategy

Participants will be informally assessed on their interaction during sessions and their participation in group exercises.

Course completion will grant participants:

1.3 CEUs.

Course Language:

English.

Prerequisites:

- Basic knowledge of corporate finance and time value of money, as well as familiarity with MS Excel.
- Intermediate level of English.