

Fixed Income Markets (Basic)

Syllabus & References

Chapter 1 – Indian Bond Market Overview

- Introduction
- Instruments
- Players
- Markets
- Money Market Instruments
- The Government Bond Market (Primary and Secondary Market)
- Market Conventions
- Regulations
- Interface with Banking system and other financial markets
- Trading, Clearing and Settlement Systems

Chapter 2 – Time Value of Money

- Present Value
- Discounting
- Discount Factors
- Bootstrapping
- Interpolation

Chapter 3 – Introduction to Bonds

- Bond Features
- Types of Bonds
- Interface with Economy

Chapter 4 – Bond Characteristics

- Bond pricing and Yield
- Accrued Interest
- Day Count Conventions
- Clean and Dirty Bond Prices
- Bond / Yield Relationship
- Bond price in continuous time
- Treasury Bills

Chapter 5 – Fixed Income Risk Measurements

- Bond Instruments and Interest Rates Risk
- Duration, Modified Duration and Convexity
- Macaulay duration
- Relationship between duration, yield, coupon and maturity
- Basis Point Value (BPV)
- Convexity Measure

Chapter 6 – Yield Curve Analysis

- Yield Curve
- Different types of yield curve
 - YTM curve
 - Par yield curve
 - Zero coupon (spot) yield curve
 - Forward curve
- Yield curve and yield curve theories
- Econometric forecasting of the yield curve
- Benchmark curve
- Interpreting the Yield Curve/ZCYC

Chapter 7 – Portfolio Management and Trading Strategies

- Constructing the bond portfolio
- Passive and active bond portfolio management
- Market timing strategies
- Timing bets on interest rate level
- Timing bets on specific changes in the yield curve
- Bullet, barbell, ladder and Butterfly strategies

Chapter 9 – Measuring Volatility

- Concept of Value at Risk
- VAR Calculation
- VAR Conversion
- VAR Methods
 - Historical Simulation
 - Normal (Variance/Covariance method)
 - Monte Carlo

Chapter 10 – Structured Products

- Structured Products
- Securitized Debt
- Mortgage Backed Securities

Reference Books:

1. Duration, Convexity, and other Bond Risk Measures, Frank J. Fabozzi, John Wiley and Sons
2. Hand Book of Fixed Income Securities, Frank J. Fabozzi, McGraw-Hill Professionals
3. Fixed Income Analysis - Second Edition, Frank J. Fabozzi, John Wiley and Sons

4. Bond & Money Market Strategy, Moorad Chowdhary, Butterworth Heinemann
5. The Money Markets Handbook: A Practitioners Guide, Moorad Chowdhary, John Wiley and Sons
6. Analysing & Interpreting the Yield Curve, Moorad Chowdhary, John Wiley and Sons
7. Fixed Income Markets (Instruments, Applications, Mathematics), Moorad Chowdhary, John Wiley and Sons
8. Introduction to Bond Markets, Moorad Chowdhary, John Wiley and Sons
9. An Introduction to Repo Markets, Moorad Chowdhary, John Wiley and Sons
10. Fixed Income Markets and their Derivatives, Suresh Sundaresan, South Western College Publications
11. Value at Risk, Philippe Jorion, McGraw-Hill
12. Bond Pricing & Portfolio Analysis, Olivier De La Grandville, MIT Press
13. Handbook of Debt Securities and Interest Rate Derivatives, A V Rajwade, TATA McGraw Hill
14. Fixed Income Securities - Tools for Today's Markets, Bruce Tuckman, John Wiley and Sons