

# Programme on Bond Portfolio Management with Trading Game

April 16 – 21, 2018

## Who should Attend?

- ☆ Bond Dealers
- ☆ Portfolio Managers
- ☆ Fund & Investment Managers / Consultants
- ☆ Financial Analysts
- ☆ Mid / Back Office Professionals
- ☆ Regulators, Compliance Staffs and Auditors
- ☆ Managers of Corporate Treasuries
- ☆ *Any Newcomer interested in bond markets are also encouraged to participate*

## Content Highlights

- ◇ Basics of Bond Market
- ◇ Yield and Return Measures
- ◇ Pricing and Valuation Techniques
- ◇ Yield Curve & Interest Rate Term Structure Analysis
- ◇ Bond Price Sensitivity
- ◇ Interest Rate Derivatives and Hedging Bond Portfolio
- ◇ Bond Trading and Portfolio Management Strategies
- ◇ Portfolio Optimization
- ◇ Value-at-Risk Analysis
- ◇ Simulated Bond Trading Game

Coordinator

Dr Kedar nath Mukherjee



National Institute of Bank Management  
Pune, India

# Programme on Bond Portfolio Management With Trading Game

Portfolio managers around the world continue to face greater challenges than ever before. Bond markets have also developed at a dramatic pace not only in developed countries but also in developing countries like India. Development in terms of widening the scope of bond market, trading of new products, introduction of various hedging instruments including derivatives and structured products, setting various regulatory standards, etc. have brought a significant amount of challenges for the managers to efficiently manage their bond portfolio. Therefore, finance professionals require a thorough understanding of the structure of various vanilla and complex products, various strategies to successfully trade on those products, and the necessary fundamental and advanced hedging techniques, in order to be successful.

## ❖ Basic Concepts of Bond Market:

- ❖ Overview of Bond Markets in India and Worldwide
- ❖ Scope and Developments in Government Securities and Corporate Bond Markets in India

## ❖ Yield and Return Measures:

- ❖ Yield Measures: Nominal Yield, Current Yield, Yield to Maturity
- ❖ Yield Measures for Bonds with Special Features (Floating Rate, Call/Put Option)
- ❖ Yield Measures on Bond Portfolio
- ❖ Critical Assessment of Yield measures
- ❖ Measure of Total Return
- ❖ Scenario Analysis

## ❖ Pricing and Valuation Techniques:

- ❖ Par Value, Discount and Premium Bonds
- ❖ Valuation of Zero-Coupon Bonds
- ❖ Traditional Method of Valuing Option-free Fixed Coupon Bond
- ❖ Treatment of Accrued Interest
- ❖ Day Count Conventions

## ❖ Valuation of Floating Rate Bonds

- ❖ Valuation of Bonds with Embedded Options

## ❖ Yield Curve Analysis:

- ❖ Construction of Yield Curves
  - Linear Interpolation
  - Cubic Polynomial/Spline
- ❖ Yield Curve Smoothing
- ❖ Treasury STRIPS and Bond Arbitrage: Coupon Stripping and Bond Reconstitution
- ❖ Calculating Implied Spot Rates/ZCYC from Coupon Bonds (Bootstrapping, NSS Methods)
- ❖ Calculating Implied Forward Rates
- ❖ Impact of Smooth & Fair Yield Curve on the Term Structures of Spot and Forward Rates
- ❖ Theories of Term-Structure:
  - Expectations Theory
  - Liquidity Preference Theory
  - Market Segmentation Theory

## ❖ Bond Price Sensitivity:

- ❖ Factors Determining Bond Price Sensitivity
- ❖ Price/Yield Relationship
- ❖ Duration-Convexity Approach:
  - Different Measures of Duration
  - Determinants of Duration
  - Macaulay and Modified Duration
  - Price Value Basis Point (PVBP/PV01)
- Effective Duration for Bonds with Embedded Options
- Duration for Floating Rate Bonds
- Limitations of Duration Measures
- Key Rate Duration
- Meaning and Importance of Convexity
- Convexity Adjusted Duration and its Significance

## Distinctive Features of the Programme

This programme has been structured, keeping in mind the advanced analytical requirement of a trader or a manager in dealing with the bond portfolio, or other concerned executives. Besides covering the complete theoretical fundamentals of bond portfolio management, the programme also intends to make the participants exposed to a *Bond Trading Game*.

## Bond Trading Game:

This game will give hands on experience of trading bonds and interest rate derivatives in an environment simulated to resemble an actual trading day in a Treasury. This will help the participants to learn how to analyze news: economic, political, domestic and international. Trading will be conducted in government bonds as well as corporate bonds, money market instruments, and interest rate derivative contracts. Participants will be given a starting portfolio as well as a set of limits they need to be adhered to.

## ❖ Bond Price Sensitivity (Contd):

- Potential Gain from Increasing Convexity on Bond Portfolios
- Duration and Convexity of a Bond Portfolio
- ❖ **Hedging Bond Portfolio:**
  - ❖ Different Risks involved in Bond Portfolio
  - ❖ Duration based Hedging Strategies
  - ❖ Forward Rate Agreement and Interest Rate Swaps Contract
    - Pricing and Valuation of FRA and IRS
- Overnight Index Swap (OIS): MTM Valuation, Unwinding, PV01
- ❖ Interest Rate Futures Contract:
  - Meaning, Market Structure, Clearing and Settlement
  - Margining System
  - Pricing and Valuation of IRF contract
  - Cash and Carry, and Reverse Cash and Carry Trading Mechanism
  - Hedge Ratio and its Effectiveness

## ❖ Interest Rate Options Contract:

- Vocabulary of Options
- Callable and Puttable Bonds
- Options Adjusted Spreads
- ❖ Interest Rate Structured Products:
  - Arbitrage-free Binomial Option Pricing Model to value Interest Rate Options
  - Structured Products (Cap, Floor and Collars, etc.) and their Valuation

## ❖ Trading and Management Strategies in Bond Portfolio:

- ❖ Relative Value Trading:
  - Riding the Yield Curve
  - Yield Spread Trades
  - Butterfly Trades
- ❖ Passive and Active Strategies to Manage Fixed Income Portfolio
- ❖ Bond Portfolio Optimization

## ❖ Value-at-Risk Analysis:

- ❖ Calculating VaR on Bond Portfolio through:
  - Variance-Covariance Approach
  - Historical Simulations
  - Monte Carlo Simulations
- ❖ Critical Assumptions of VaR: Confidence Intervals, Historical Volatility and Correlations
- ❖ Stress Testing on VaR Estimates
- ❖ **Simulated Bond Trading Game:**
  - ❖ Opening Bond Portfolio
  - ❖ Market Moving News and Events
  - ❖ Quotes to Customers
  - ❖ Bid/Offer Quotes to Other Market Participants
  - ❖ Bidding For RBI Bond Auctions
  - ❖ Yield Curve Play
  - ❖ Corporate Bond Yield vs. GoI. Bond Yields (Spreads)

## Dates

April 16 – 21, 2018

The programme will commence on April 16th at 9.00 a.m. and will conclude by the evening of April 21, 2018. Participants are requested to reach NIBM Campus by the evening of April 15, 2018.

## Venue

NIBM Campus, Kondhwe Khurd, Pune, India.

## Hostel Accommodation

The programme is fully residential. Participants will be provided well furnished single room AC accommodation in the Institute's hostel complex on the Campus. However, they will not be permitted to bring their family members to stay on the campus. In case any Officer/Executive with physical/medical disability is being nominated, kindly inform us in advance with particulars of disability to facilitate necessary arrangements.

The Institute has facilities for outdoor and indoor games and a large walking/jogging trail for physical fitness besides a yoga centre. Participants are, therefore, encouraged to bring the appropriate clothes/gears.

## Dr Kedar nath Mukherjee (Programme Coordinator)



Dr. Mukherjee, Assistant Professor, Finance Area, National Institute of Bank Management, Pune, INDIA, has obtained his Bachelors, Masters, and M.Phil. in Commerce, followed by Ph.D. in Financial Management. His last 10 years of Teaching and Training interests include: Financial Markets, Fixed Income Securities Market, Security Analysis and Portfolio Management, Risk Management and Financial Derivatives, Financial Engineering and Structured Finance, Time Series Analysis. He conducts various Executive Development Programmes in these areas for Senior and Middle level executives in Banks and other Financial

Institutions. His research interests are also broadly in the similar areas.

### Key Resource Persons (Invited in Past Years):

- Shri. G Mahalingam, Whole Time Member, SEBI; Ex-Executive Director, Financial Market Department, Reserve Bank of India
- Shri Arun Kaul, EX-Chairman and Managing Director, UCO Bank
- Shri S B Mainak, EX-Managing Director, LIC of India Ltd.
- Shri. S Bandyopadhyay, MD & Chief Executive Officer, LIC Pension Fund Ltd.
- Shri D.V.S.S.V. Prasad, CEO, FIMMDA, Mumbai
- Shri Ripujit Chaudhuri, General Manager, Risk Management Group, ICICI Bank
- Shri Sanjeev Kumar, DGM - Treasury, Central Bank of India
- Shri. Vijay Sharma, Executive Vice President & Head-Dealing, PNB Gilts Ltd.
- Shri. Sayandev Chakravarti, Head, Investors Sales, ANZ Bank.
- Shri. Rajosik Banerjee, Partner, KPMG, Mumbai

## Nominations and Enquiries

Please address your enquiries and nominations to:

### Dr Kedar nath Mukherjee

Programme Coordinator

National Institute of Bank Management

NIBM Post office, Kondhwe Khurd

Pune 411 048, India

Tel : 0091-20-26716000 (EPABX), 26716351 (Direct)

Fax : 0091-20-26834478

E-mail: kedar@nibmindia.org/kedar.nibm@gmail.com

For further Details Visit us at Website: <http://www.nibmindia.org>

**Last Date for Receiving Nominations:**

April 6, 2018

**Last Date for Availing Early Bird Incentive:**

March 31, 2018

(See Fee Structure on home page of the website)

## Programme Fee (per participant)

US \$ 2400 for foreign participant

(See fee structure on home page of the website for incentive)

|                  | Fee   | GST   | Fee + GST | TDS  |
|------------------|-------|-------|-----------|------|
| Mem. Banks :     | 50400 | 9072  | 59472     | 5040 |
| Non-Mem. Banks : | 58800 | 10584 | 69384     | 5880 |

The fee includes the cost of tuition, board and lodging facilities, teaching material, etc. (Goods and Services Tax (GST) @ 18%, and TDS @ 10%. Kindly send the TDS Certificate on priority to NIBM).

### Mode of Payment for Indian Participants

- The fee may preferably be transferred by RTGS/NEFT/ECS to our A/c No. 20002400021 with Bank of Maharashtra, NIBM Branch, Pune (IFSC Code MAHB0001124). NIBM PAN No. AAATN0040P and NIBM GSTIN No. 27AAATN0040P1ZJ.
- National Institute of Bank Management  
NIBM Post Office, Kondhwe Khurd, Pune 411 048, INDIA.

### Mode of Payment for Foreign Participants

#### Mode of Remittance: SWIFT\*

1. Name & Address of our Bankers : Oriental Bank of Commerce  
C-2, Shop No. 4-5, Bramha Estate  
Kondhwe Khurd, Pune 411 048  
Maharashtra, India
2. Name of the Account : National Institute of Bank Management
3. NIBM's Bank Account No. with Oriental Bank of Commerce : Current A/C 11281131004402
4. Bank's Swift Code : ORBCINBBFCP
5. Oriental Bank of Commerce A/c No. with Correspondent Bank : 36152559
6. Preferred currency : USD
7. Correspondent Bank : CITIBANK N.A.
8. Swift code for Citi Bank : CITIUS33

**\* The Foreign Bank Charges/ SWIFT charges/Commission is to be borne by the remitter. The fees mentioned in the invoice/brochure is to be paid to NIBM, net of all bank charges.**

**\*Payments will be accepted only through electronic mode. Cheques/DDs/Pay Orders will not be accepted.**

- For all electronic remittances, kindly send a confirmatory e-mail at: [accounts@nibmindia.org](mailto:accounts@nibmindia.org) giving details of the remitter and participant, name and dates of programme, etc.

Please see programme fee structure on home page of the website for early bird incentive, incentives for SAARC and other developing countries, mode of remittance, Pune City route map and local conveyance.