



**Campus Programme on**

# **Demystifying Statistical Techniques for Risk Management**

*Programme Directors*

**Prof. Arindam Bandyopadhyay**

**Prof. Sanjay Basu**

**July 29 – August 2, 2024**  
**(Duration: 5 days)**



**National Institute of Bank Management**  
**Pune, India**

## Background

Risk management is, first and foremost, a 'science' and then an 'art'. The purpose of risk analysis is to assist risk officers in better understanding the risks (and opportunities) they take and evaluate the options available for the management of these risks in order to enable them to make a much better and more conscious decision. Given the risk appetite of banks, the use of accurate and relevant data, reliable financial models and the best analytical tools, can optimise the bank's risk and make the odds work in their favour.

Data analysis, statistical modelling and their applications are the fundamental requirements for measuring and managing the effect of risk. Banks and financial institutions will have to necessarily develop a comprehensive self-understanding of the design and operation of a sound risk management system, including modelling, their business applications and uses as well as their limitations. In this context, knowledge of basic statistical techniques and their usage in banking in general and risk management in particular, is the need of the hour.

NIBM is offering this intensive and practical hands-on exercise-oriented risk management training programme especially for bank executives to understand the tools and techniques to handle statistical data for identifying and measuring various types of risks at an individual as well as the institutional level. The building blocks of the risk assessment process (or techniques) must be understood widely for a smooth migration towards a more sophisticated and robust risk management system.

### Key Learning Objectives

- ❖ To demystify the statistical and quantitative techniques for identifying and estimating crucial risk parameters in the banking business.
- ❖ To update the participants on the latest developments and techniques in the field of risk management including Basel III advanced approaches and ICAAP requirements.
- ❖ To adopt sophisticated approaches to meet regulatory requirements (including validation and stress testing) and benefit from the transition to risk-based oversight (economic capital and business forecasting).

## Coverage

### Basics

- ❑ Overview of Risk Management in the Current Scenario: Identification; measurement and management of risk; data challenges and requirements; data cleaning and formatting; etc.
- ❑ Statistical Techniques: Basic statistics for risk measurement - Measure of moments; probability distributions; hypothesis testing; descriptive statistics; multivariate techniques; time series forecasting; diagnostic tests for model validations and simulation techniques.
- ❑ Basic Mathematics and their Applications: Interpolation and expectation theorem; probability; optimisation techniques; factor analysis; Value-at-Risk approach (VaR); backtesting and stress testing; etc.

## Specific Computation Methods

- ❑ Credit Risk: Credit scoring models; estimation of PD, EAD and LGD; transition matrix analysis; correlation of default; expected loss and unexpected loss; and model validation.
- ❑ Market Risk: Identification and measurement of market risk for equity and bonds; computing market VaR using normal distribution and Extreme Value Theorem (EVT) to arrive at market capital and risk-adjusted performance; market risk modelling approaches - variance-co-variance approach; historical simulation versus Monte Carlo simulation.
- ❑ Liquidity Risk: Liquidity risk estimation for advances and deposits; modelling methods; and liquidity stress testing.
- ❑ Operational Risk / Climate Risk: Measurements of high-frequency - low-severity and low-frequency - high-severity events using simulation-based LDA approach; stress testing of scenario analysis; case study of banks using Excel worksheet and software data analysis.
- ❑ Portfolio View and Loan Concentration: Measurement of concentration risk, portfolio diversification effect, limit setting, estimation of economic capital and credit risk stress testing.
- ❑ Risk-Adjusted Performance: Business performance analysis, efficiency metrics and integration of risks.

## Target Group

**The programme is designed for executives / officers / professionals posted or who are likely to be posted in the risk management / economic research / analytical divisions. Some prior knowledge of statistics is assumed.**

## Method / Pedagogy

The programme will be held on campus and will comprise classroom interactions as well as numerous hands-on exercises / data analyses in the Finance Lab spread over 5 days.

## Dates

July 29 – August 2, 2024

The participants are requested to report at the venue by the evening of July 28, 2024.

## Venue

NIBM Campus, Kondhwe Khurd, Pune, India

## Accommodation

The programme is fully residential. Participants will be provided well-furnished, single room AC accommodation in the Institute's hostel complex in the campus. However, they would not be permitted to bring their family members to stay in 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 appropriate clothes / gear.

Participants attending the workshop on campus will be subject to the prevailing guidelines for educational institutes as per the notifications by the government / civic authorities.

## Completion / Participation Certificate

A completion / participation certificate will be given to the participant at the end of the programme provided he / she attends the programme for the mandated hours of engagement.

### Nominations and Enquiries

Nominations are invited from both institutions and individuals from India and abroad. Executives working in banks / financial institutions / consulting firms / technology firms in the banking and financial services domain can also apply for the programme in their individual capacity.

*Please address your enquiries regarding nominations and programme content to:*

#### Programme Director

Prof. Arindam Bandyopadhyay

Email: arindam@nibmindia.org; Tel: +91-20-26716311 (D); Mobile: 8551032624

Prof. Sanjay Basu

Email: sbasu@nibmindia.org; Tel: +91-20-26716129 (D); Mobile: 9850704234

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*Enquiries related to programme registration, accommodation, etc. may kindly be addressed to:*

#### Programme Office

National Institute of Bank Management

NIBM Post Office, Kondhwe Khurd

Pune 411 048 (India)

Tel. : +91-20-26716000 (Board) / 26716375 / 257 / 210 / 392

WhatsApp : 7887884083 (Messages Only)

Email : trainings@nibmindia.org / progofficer@nibmindia.org

Website : www.nibmindia.org

**For registrations / nominations, please login using the following link:**

[\*\*https://erp.nibmindia.org/POApplication#/\*\*](https://erp.nibmindia.org/POApplication#/)

If you find any difficulty in accessing the above link, then kindly advise your IT department to whitelist nibmindia.org domain in the firewall.

**Last Date for receiving nominations : July 20, 2024**

**Last Date to avail 'Early Bird Discount': July 15, 2024**

## Programme Fee (per participant)

US \$ 2000 for foreign participant

	Fee	GST	Fee+GST	TDS
Member Banks	: 52500	9450	61950	5250
Non-Member Banks	: 61500	11070	72570	6150
Individual Nominee	: 61500	11070	72570	----

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

As per the resolution of NIBM's 86th Finance Committee meeting held on January 31, 2023, all organisations / banks are required to make the full payment for all their nominations for the NIBM 'Executive Training Programmes / Workshops', prior to the commencement of the respective programmes / workshops. The Reserve Bank of India has given its consent for this new initiative.

## Discounts

1. 5% 'Early Bird' discount for nominations received at least 15 days prior to commencement of programme.
2. **Bulk nominations:** The following discounts will be applicable –  
(a) 6-10 nominations – 5%    (b) 11-19 nominations – 10%  
(c) 20 and above – 15%

### 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 GST 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 : Punjab National Bank  
C-2, Shop No. 4-5, Bramha Estate  
Kondhwe Khurd, Pune 411 048  
Maharashtra, India
2. Name of the Beneficiary : National Institute of Bank Management
3. NIBM's Bank Account No. with Punjab National Bank : 11281131004402
4. Bank's Swift Code : PUNBINBBDIB
5. Preferred Currency : USD
6. Correspondent Bank of Punjab National Bank : WELLS FARGO BANK NA
7. Punjab National Bank A/c No.: with Correspondent Bank : 2000193007918
8. Swift Code : PNBUS3NNYC
9. IFSC : PUNB0108810

\* 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 / digital remittances, kindly send a confirmatory e-mail to: [accounts@nibmindia.org](mailto:accounts@nibmindia.org), giving details of the remitter, participant, Programme dates, title of programme, etc.**

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