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Online Programme on Demystifying Statistical Techniques for Risk Management

August 17 – 22, 2020
(Online course duration 20 hours)

Coordinators

Dr Arindam Bandyopadhyay

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Prof Sanjay Basu

Associate Professor
(Finance Area Group)



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Risk management is, first and foremost, a 'science' and then an 'art'. The purpose of risk analysis is to assist risk officers better understand the risks (and opportunities) they take and evaluate the options available for their control so as to enable them to make a much better and conscious decision. Given the appetite for risk, if one uses accurate and relevant data, reliable financial models and best analytical tools, one can minimise risk and make the odds work in one's favour.

Data analysis, statistical modelling, and their applications are the fundamental requirements for measurement and managing the effect of risk. Indian banks 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 computer 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 individual level as well as at the institutional level. It is necessary that building blocks of the risk assessment process (or techniques) is understood widely for a smooth migration towards the more sophisticated and robust risk management system.

Key Learning Objective

- To demystify the participants with 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 regulatory requirements (including validation and stress testing) and benefit from the transition to risk-based oversight (economic capital and business forecasting).

Content

Basics

- ❑ Overview of risk management in the current scenario - identification, measurement and management of risk, data challenges and requirement, data cleaning and formatting, etc.
- ❑ Statistical Techniques: Basic statistics for risk measurement - measure of moments, probability distributions, hypothesis testing, mean and variance equality tests, discriminant analysis, correlation, multivariate regression analysis, time series forecasting, diagnostic tests for model validations and simulation techniques.
- ❑ Basic mathematics and their applications - interpolation and expectation theorem, probability, optimization techniques, factor analysis, value-at-risk approach (VaR), back testing and stress testing, etc.

Specific Computation Methods

- ❑ **Credit Risk:** Credit scoring models, estimation of PD, EAD, LGD, transition matrix analysis; correlation of default; expected loss and unexpected loss; credit VaR, economic capital and portfolio analysis; stress testing and model validation.
- ❑ **Market Risk:** Identification and measurement for equity and bonds; market VaR with 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:** 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 workout and software data analysis.
- ❑ **Concentration Risk:** Measurement of concentration risk and portfolio diversification effect, portfolio construction and simulation methods; estimation of concentration risk capital.
- ❑ **Risk-Adjusted Performance:** Business performance analysis and efficiency metrics and integration of risks.

Target Group

This programme is designed for executives/officers/professionals posted or who are likely to be posted in the Risk Management/ Economic Research/Analytical Division. Some prior knowledge of statistics is assumed.

Dates

August 17 - 22, 2020

The programme will start at 10.00 am on August 17 and will conclude by 5.30 pm on August 22, 2020. The online learning system window will be opened from Sunday (August 16) and will be closed on Monday night (August 24). The detailed schedule will be given on August 16, 2020.

Pedagogy

This online course will have 20 hours of engagement time delivered via online mode, over 6 days. The courseware will comprise of:

- i. Reading material for self-study, Case study or exercise material and Online references
- ii. Video sessions comprising of:
 - a. Pre-recorded video sessions on several topics including hands on sessions
 - b. Live, interactive video sessions by faculty and guest speakers
- iii. Excel based Templates and Econometric Packages for hands on exercises
- iv Self-assessment quizzes and assignments to track progress in the course

Modalities

Participants enrolled to the programme will be provided login id and password to their registered email ids (please clearly specify on which email id it will be sent during enrolment time). Using the log in ID and password, the participant will be able to log into the learning management platform of the institute. The detailed programme schedule will be shared with the participants as soon as we open the programme window (it will be opened from Sunday, August 16, 2020). Guidance will be provided for navigating through various activities in the platform such as accessing the courseware, viewing video sessions, participating in live sessions, taking quizzes, etc. The programme window will be kept open for maximum 8 days (till Monday, August 23, 2020) to access the material, live videos etc.

Completion Certificate

A completion certificate will be given to the participant at the end of the programme. Participant has to remain logged in for at least the total number of engagement hours within the duration of the programme for being considered to have completed the same. Feedback should be submitted before the conclusion of programme (i.e. before 5.30 PM, August 22, 2020).

Nominations and Enquiries

Nominations are invited from both Institutions and Individuals from India and Abroad. Executives working in Banks/Financial Institution/Consulting Firms/Audit and Accountancy Firms/Technology Firms in the Banking and Financial Services Domain can apply for the programme in their individual capacity

Please address your enquiries and nominations to:

Dr Arindam Bandyopadhyay

Prof Sanjay Basu

Programme Coordinators

National Institute of Bank Management

Kondhwa Khurd, Pune 411048, INDIA

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E-mail : arindam@nibmindia.org, sbasu@nibmindia.org

Web : www.nibmindia.org

Last Date for Receiving Nominations: August 14, 2020

Programme Fee (per participant) for 20 hours programme

US \$ 800 for foreign participant

	Fee	GST	Fee+GST	TDS
Member Banks :	18000	3240	21240	1800
Non-Member Banks :	21000	3780	24780	2100
Individual Nominee :	21000	3780	24780	----

The fee includes the cost of tuition, access to reading material and recorded videos, etc. (Central 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 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 giving details of the remitter and participant, name and dates of programme, etc.**