KESD@E
e-learning and reference solutions for the global finance professional

Value at Risk

Library of 16 courses providing an in-depth understanding of Value at risk and its applications.

After completing this course, you will be able to:

- Define VAR and explain how it is used to quantify risk
- Measure Value at Risk using various methods
- Familiarize yourself with the profile of major vendors of risk management systems available in the market
- Understand the benefits of Stress Testing as a complement to VaR
- Understand and apply advanced volatility and correlation models such as GARCH and EMWA
- Learn from the failures of Barings Bank, Orange County and Metallgesellschaft
- Apply VaR into the context of managing capital and making strategic decisions such as capital allocation

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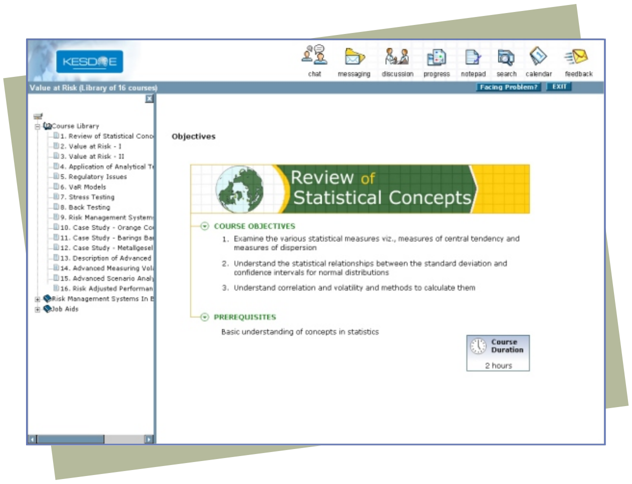

Overview

Value at risk is vital for banks, securities firms, commodity and energy merchants, and other trading organizations to be able to track their portfolios' market risk. It is a measure used by financial practitioners to quantify risk of a portfolio. The Course introduces the same and provides an up-to-date working knowledge of all aspects of VaR analysis, including the latest VaR models in theory and practice.

Course Level & Number of Courses
Intermediate Level
Library of 16 Courses

Instructional Method
Dynamic, Interactive e-learning

Recommended Background
Familiarity with basic financial concepts

Target Audience

Every professional involved in the global financial services industry (as a provider, user, regulator or advisor of product/services, marketplace/exchange) would benefit from KESDEE's innovative solutions.

- Supervisory Agencies
- Central Banks
- Financial Institutions
- Commercial Banks
- Investment Banks
- Housing Societies/Thrifts
- Mutual Funds
- Brokerage Houses
- Stock Exchanges
- Derivatives Exchanges
- Insurance Companies
- Multinational Corporations
- Accountancy Firms
- Consultancy Firms
- Law Firms
- Rating Agencies
- Multi-lateral Financial Institutions
- Others

The themes of this product are:
- VaR as an integral part of risk management
- VaR as a measurement tool
- VaR to improve performance

Library of 16 Courses

Time taken to complete each Course: Two - Three hours

1. Review of Statistical Concepts

- The various statistical measures viz., measures of central tendency and measures of dispersion
- The statistical relationship between the standard deviation and confidence intervals for normal distributions
- The concept of correlation and volatility and the methods to calculate them

2. Value at Risk-I

- The concept of Value at Risk
- The concept of trading and banking book
- The various methodologies of estimating VaR and their strengths and weaknesses
- The comparison between the strength and limitation of VaR

3. Value at Risk-II

- The computation of VaR of foreign exchange spot, foreign exchange options positions, common shares/stocks, fixed income portfolio including portfolio
- The various applications of VaR

4. Application of Analytical Techniques

- The framework of the analytical technique -gap, duration, simulation and value at risk
- The concept and assumption under each technique
- The comparison and analysis of each techniques across various parameters
- The application of techniques with real life case studies

5. Regulatory Issues

- How market risk can be regulated
- The purpose of regulatory capital
- The various approaches applied to capital charges

6. VaR Models

- The various methods to measure value at risk such as parametric, historical simulation and monte carlo simulation
- The comparison among the various methods according to their characteristics, advantages and disadvantages
- The process of value at risk implementation

7. Stress Testing

- The concept of stress testing as a complimentary tool to value at risk analysis
- The creation of hypothetical and historical scenarios
- The implementation of stress test scenarios into market risk modeling
- The growing use of stress testing to risk managers

8. Back Testing

- The technique of backtesting
- The different types of backtesting

9. Risk Management Systems

- The important steps involved in the choice of risk management software vendor
- The main software solution vendors in the market; the products they offer and their salient features

10. Case Study - Orange County

11. Case Study - Barings Bank

12. Case Study - Metallgesellschaft

Library of 16 Courses

Time taken to complete each Course: Two - Three hours

13. Description of Advanced VaR Models
- The various emerging forms of VaR viz., Component VaR and Del VaR
- The impact on individual trades on Total VaR using these forms
- The advancements in Monte Carlo Simulation
- The variance reduction techniques employed for Monte Carlo Simulation

14. Advanced Measuring Volatility and Correlation
- The concept of volatility and volatility clustering
- The conditional volatility models viz., Exponential Moving Average approach and GARCH
- The importance of time errors and the impact of crashes on correlation and its effect on VaR calculation

15. Advanced Scenario Analysis and Stress Tests
- The application of stress testing to a group of reporting firms through aggregation
- The various techniques like Maximum Loss and Extreme Value Theory
- How systematic stress testing is used with the help of stress test matrices

16. Risk Adjusted Performance Measurement
- The concept and need for risk adjusted performance measurement
- Risk capital and details of the measures for risk capital viz., revenue (or earnings) volatility, Earnings at Risk (EaR), and asset volatility -Value at Risk (VaR)
- The importance of capital allocation in risk adjusted performance measurement and the factors that affect them

JOB AIDS
- Measurement Tools
- Disclosures
- Global Best Practices
- Benchmarking Data
- Policy Templates

Calculators in Market Risk: Advanced Level
1. Duration
2. Confidence Level for a Given Standard Deviation
3. Standard Deviation for a Given Confidence Level
4. Value at Risk Variance –two asset portfolio
5. VaR for Required Period and Confidence Level
6. Undiversified and Diversified VaR
7. VaR of Equities
8. VaR of an FRA
9. Jensen’s Measure
10. Sharpe's Measure
11. Treynor's Measure
12. Variance Co-variance

KESDEE's Off-the-Shelf e-Learning Course Libraries

Product Name	No. of Courses
1. Asset Liability Management	Library of 28 Courses
2. Liquidity Management and Contingency Funding Plan	Library of 14 Courses
3. Financial Institution Analysis - CAMELS Approach	Library of 08 Courses
4. Financial Mathematics	Library of 07 Courses
5. Global Banking Supervision	Library of 15 Courses
6. Capital Adequacy Planning (Basel I)	Library of 07 Courses
7. Basel-II-University	Library of 63 Courses
8. Operational Risk Management – Basel II	Library of 09 Courses
9. Futures and Forwards	Library of 07 Courses
10. Swaps	Library of 07 Courses
11. Options	Library of 10 Courses
12. Market Risk - Basic	Library of 08 Courses
13. Market Risk - Intermediate	Library of 08 Courses
14. Market Risk - Advanced	Library of 04 Courses
15. Value at Risk	Library of 16 Courses
16. Credit Analysis	Library of 13 Courses
17. Credit Ratings	Library of 03 Courses
18. Counter party Credit Risk	Library of 09 Courses
19. Credit Risk Modeling	Library of 06 Courses
20. Credit Derivatives	Library of 23 Courses
21. Operational Risk Management	Library of 21 Courses
22. Asset Securitization	Library of 28 Courses
23. Asset Liability Management for Insurance Companies	Library of 29 Courses
24. Anti-Money Laundering	Library of 06 Courses
25. Financial Privacy	Library of 06 Courses
26. Corporate Governance	Library of 09 Courses
27. Sarbanes-Oxley Act	Library of 12 Courses
28. Governance, Risk and Compliance	Library of 07 Courses
29. Money Markets	Library of 09 Courses
30. Fixed Income Markets	Library of 17 Courses
31. Equity Markets	Library of 10 Courses
32. Foreign Exchange Markets	Library of 09 Courses
33. Commodity and Energy Markets	Library of 03 Courses
34. CTM - Foreign Exchange Management	Library of 07 Courses
35. CTM - Treasury Analytics	Library of 05 Courses
36. CTM - Interest Rate Risk Management	Library of 04 Courses
37. CTM - Funding and Investments	Library of 05 Courses
38. CTM - Implementation	Library of 04 Courses
39. CTM - Case Studies	Library of 05 Courses
40. Understanding Financial Statements	Library of 02 Courses
41. Budgeting	Library of 05 Courses
42. Management Accounting	Library of 07 Courses
43. Financial Accounting	Library of 09 Courses
44. Mutual Funds	Library of 10 Courses
45. Financial Planning	Library of 09 Courses
46. UCP600	Library of 07 Courses
47. International Trade Services	Library of 09 Courses
48. BBM - Deposits	Library of 04 Courses
49. BBM - Advances	Library of 07 Courses
50. BBM - Marketing	Library of 03 Courses

KESDEE's Off-the-Shelf e-Learning Course Libraries

Product Name	No. of Courses
51. BBM - Payment and Settlement System	Library of 02 Courses
52. BBM - Foreign Exchange Operations	Library of 03 Courses
53. BBM - Trade Finance	Library of 02 Courses
54. BBM - Book Keeping and accounting	Library of 03 Courses
55. BBM - Ancillary Services	Library of 02 Courses
56. BBM - Risk Management	Library of 03 Courses
57. BBM - Technology and Security	Library of 02 Courses
58. BBM - HRM and CSR	Library of 02 Courses
59. BBM - Retail Banking	Library of 03 Courses
60. Introduction to Bank Lending Environment	Library of 07 Courses
61. Basics of Banking	Library of 10 Courses
62. Flotation	Library of 04 Courses
63. Project Valuation	Library of 03 Courses
64. Trading Operation Controls	Library of 04 Courses
65. Economics	Library of 16 Courses
66. Estate Planning	Library of 04 Courses
67. Global Economic Crisis - Liquidity Management	Library of 07 Courses
68. Brokerage Operations	Library of 01 Course
69. Risk Analysis	Library of 05 Courses

* CTM: Corporate Treasury Management
* BBM: Bank Branch Management

Certification Tutorials

1. ePRM Coach	Library of 68 Courses
2. Associate ePRM Coach	Library of 36 Courses
3. eFRM Coach for FRM Part I Exam	Library of 37 Courses
4. eCoach for the CFA® Level I Program	Library of 76 Courses

Upcoming Products

KESDEE has the required technology platform to respond to clients training requirements in the banking and financial services industry. We offer several solutions, each developed with the guidance of creditable experts.Given below are few of the forthcoming products:

- Agricultural Finance

KESDEE

GFTT
Global Financial Training and Technology

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