

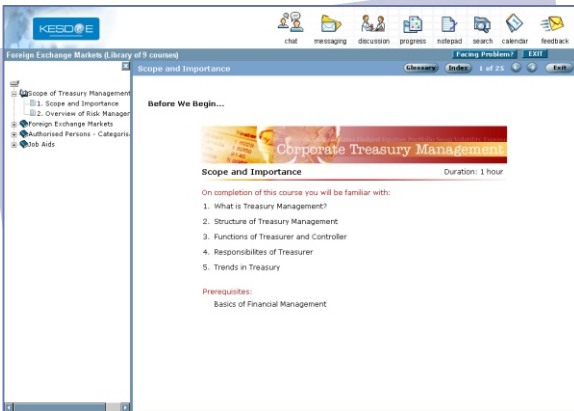
# CTM - Treasury Analytics

The concept of yield curve analysis, different analytical techniques like duration, convexity and basis point value, which form the basis for understanding the overall risk measurement framework are the elements of this course group. The practitioner is introduced to the Value-at-Risk (VaR) methodology to measure risks.

**After completing this course you will be conversant with:**

- Yield curve analytics
- Various analytical techniques
- Value-at-risk methodology





## Overview

The concept of yield curve analysis, different analytical techniques like duration, convexity and basis point value, which form the basis for understanding the overall risk measurement framework are the elements of this course group. The practitioner is introduced to the Value-at-Risk (VaR) methodology to measure risks.

### Course Level & Number of Courses

Intermediate Level  
Library of 7 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/Thriffs
- 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

## Library of 7 Courses

Time taken to complete each Course: Two - Three hours

### 1. Treasury Management – Scope and Importance

- What is Treasury Management?
- Structure of Treasury Management
- Functions of Treasurer and Controller

### 2. Overview of Risk Management

- Concept of Risk
- Risk Management Process
- Determination of Business Objectives
- Identification of Risks
- Measurement of Risk

### 3. Yield Curve Analysis

- Concept of Yield Curve and its Types
- Various Theories under Yield Curve Analysis
- Types of Interest Rates and their Computation
- Bond Arbitrage Strategies
- Yield Interpolation
- Applications of Yield Curve Analysis

### 4. Duration

- Concept of Duration and Modified Duration
- Computation of Duration for different types of bonds
- Relationship between duration, yield, coupon and maturity
- Duration of a Portfolio

### 5. Basis Point Value (BPV)

- Concept of Basis Point Value
- Relationship between BPV, Duration and Modified Duration
- BPV for On-Balance Sheet items
- BPV for Off-Balance Sheet items
- BPV of a Portfolio

### 6. Convexity

- Concept of Convexity and its Properties
- Convexity of a Portfolio
- Impact of price change on convexity
- Positive and Negative Convexity

### 7. Value-at-Risk

- Concept of Value-at-Risk
- Ways of expressing VaR
- VaR Calculation
- VaR Conversion
  1. One confidence to another
  2. One horizon to another
- VaR Methods
  1. Historical Simulation
  2. Monte Carlo Simulation
  3. Variance-Covariance Method

#### Job Aids

- Measurement Tools
- Disclosures
- Scope and Structure of FX and Derivatives Markets
- Global Best Practices
- Policy Templates
- Regulations

## Calculators in Treasury Analytics - Treasury Management

1. American / European Quotes
2. Spot Cross Rates
3. Calculating Forward Rate
4. Forward Cross Rates
5. Pricing Currency Futures - Continuous Compounding
6. Pricing Currency Futures - Daily Basis
7. Valuation of Generic Currency Swaps
8. NPV of Currency Cash Flow in a Swap
9. Options strategies (Excel)
10. Operating Exposure
11. Current / Non-current Method
12. Monetary/Non-monetary Method
13. Temporal Method
14. Current Rate Method
15. Money Market Hedge
16. Forward Market Hedge
17. Break Forward
18. Range Forward
19. Participate Forward
20. Duration
21. Duration of Portfolio
22. Convexity
23. BPV of a Bond
24. BPV of a Portfolio
25. BPV of a Forward Rate Agreement
26. BPV of a Coupon Paying Bond
27. Yield Curve Interpolation
28. Calculation of FRA settlement
29. Pricing T-Bond futures contract
30. Options on Futures
31. Options on LIBOR
32. Swaptions
33. Pricing interest rate swap
34. Confidence Level for a given Standard Deviation
35. Standard Deviation for a given Confidence Level
36. VaR Moving from one Confidence Level to Another (required period and Confidence level)
37. VaR - Variance Covariance Method
38. Value at Risk for Different Weights
39. Calculation of discount and price -bill of exchange
40. Price of a Discount Instrument
41. Price of a Commercial Paper
42. Money Market yield / Cash Price of CD
43. Yield - Bill of Exchange
44. Portfolio Risk and Return (when covariance and returns of assets NOT given)
45. Portfolio Risk and Return (when covariance and returns of assets is given)

## 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

# Available Products

## 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




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