



Value At Risk

This course establishes the building blocks of risk management (risk, return, normal distribution, correlation and volatility) and features practical, hands-on exercises and examples.

Targeted Audience

Risk managers and analysts, treasurers, pension fund managers, auditors, controllers, regulators, legal and compliance staff.

Special Offer

Clients who register for this course will receive a complimentary 4-month subscription to FT.com. The Financial Times is the world's most respected financial newspaper, providing a broad assessment on finance, business and the industrial sector. The move to the electronic version follows an ongoing review of our environmental responsibilities as a global business and as part of the Pearson group. FT.com also has features that are not available in hard copy, such as: Special Reports, Alphaville, editor blogs, education sections and much more! Subscriptions will start within 6-8 weeks of the start of class and are limited to one subscription per client. (Please note: as of May 1, 2011, the electronic subscription replaces the hard-copy 3-month Financial Times subscription.)

Advance Preparation

No advance preparation required.

Prerequisites

Essentials of U.S. Capital Markets or equivalent knowledge of capital markets.

Learning Objectives

Students will be able to:

- . Be exposed to the three methods of determining value at risk

- . Appreciate the benefits and be aware of the drawbacks of value at risk
- . Learn the many applications of value at risk in finance

Alumni Comments

"Excellent interaction with students. Clear and concise answers."

"Complex subject explained in an easy-to-understand manner."

"The instructor is a strength of this course."

"The instructor is a strength of this course. He gave great examples and made sure that everyone understood them."

"This course includes hands-on examples, as well as sufficient background information."

Follow-Up Courses

Risk Management Suite

Level: Intermediate

CPE Credits: 14.0

Instructional Method: Group-Live

Detailed Outline

Overview risk management

- . Galaxy of risks
- . Types of risks
- . Market risk measurements
- . Controlling risk
- . Qualitative vs. quantitative

Value at risk

- . G-30 study

Average and volatility

- . Average
- . Rate of return
- . Standard deviation
- . Volatility

Probability

- . Simple probabilities
- . Probability distributions
- . Probability density function

Normal distributions

- . Normal curve

Standard normal curves and confidence levels

- . Standard normal distribution
- . Standard normal table
- . Confidence levels
- . Using z-scores to determine minimum return

Value at risk

- . Calculation
- . Interpretation
- . Factors impacting VaR
- . Adjustment for time

Value at risk methodologies

- . Variance-covariance

Correlation and covariance

- . Correlation
- . Correlation and risk
- . Calculation of correlation
- . Correlation and covariance
- . Correlation matrix
- . Variance-covariance matrix
- . Calculation of variance
- . Portfolio volatility

Riskmetrics

- . What is it?

- . Advantages
- . Disadvantages

Monte Carlo simulation

- . Calculating the path
- . Example IBM
- . Advantages
- . Disadvantages

Historical simulation

- . Example IBM
- . Advantages
- . Disadvantages
- . Summary value at risk

Options

- . Calls
- . Puts

The Greeks

- . Delta
- . Var, Delta, Delta normal
- . Gamma
- . Duration and convexity
- . Theta
- . Vega

Applications

- . Market risk limits
- . Risk adjustments
- . Verifying models
- . Capital requirements

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