



Managing Financial Risk



Course Date: TBA



Course Length: 2 days
8:30 a.m. – 4:30 p.m. EST
each day (includes 60 min. lunch break)



Remote – Live onsite



Instructor:
Richard Weissman
Nour Zekhmi - CTA

Questions?

For more information or to register,
contact:

Nour Zekhmi

AMEXA AGENCY

Email:

operationsteam@amexaagency.com

M: +41.78.934.9380

Overview

This course provides an in-depth examination of best practices as they relate to risk management for companies engaged in trading and commercial hedging. Particular emphasis is placed on major corporate risk factors that could bankrupt or severely damage companies that trade and hedge. Although the primary emphasis is placed on price risk management, measurement and mitigation, our offering also covers operational risk, liquidity risk, systemic and credit risk.

why you should attend

This course is designed to help senior management, traders, risk managers and back-office personnel gain a thorough understanding of best practices for trading and hedging organizations. By understanding what financial risks are as well as how to measure and mitigate them, your organization can identify and avoid common pitfalls in this field. Let Mr. Richard Weissman, GARP ERP, a world-renowned author and specialist in commodity risk management share techniques, analysis and insights that only his thirty plus years of trading and risk management experience can bring. With Mr. Weissman's knowledge and guidance you'll gain a practical understanding of outright price risk, basis risk and optionality risk as well as the pros and cons of mitigating each of these risks.

Topics covered include:

- How to establish a corporate risk policy
- Implementation of broad-based and specific trading controls to mitigate operational risk
- Outright price risk, correlation risk and optionality risk
- Designing a robust risk management program
- Determining hedge objectives and strategies
- Implementation of a daily mark-to-market
- The pros and cons of various VaR models and stress testing techniques
- Hedge implementation, monitoring and adjustment
- Weissman's Risk Management Pyramid
- How statistical theories relate to Value-at-Risk calculations
- How non-normal distributions such as skewness and kurtosis impact VaR calculations
- Extreme Value Theory and GARCH

Course Syllabus – Day One

morning session

Session 1: Overview

We'll open the course by outlining the six major types of financial risk that are experienced by all corporations involved in trading and hedging. We will also define basic terms such as, "best practices", "front", "middle" and "back" offices.

Session 2: Operational Risk & Barings Bank

Through an in-depth study of the operational and trading controls failures at Barings Bank we integrate the theories of operational risk into the real-world specifics endured by England's oldest merchant bank. Particular emphasis is placed on conflicts of interest, the breakdown in separation of duties and lack of adherence to basic principles of financial risk management.

Session 3: Market Risk

This session examines the basic categories of market risk including outright price risk, basis risk and optionality risk. In addition, we examine how using options to hedge outright price risk creates non-linear market risks including delta, gamma, theta and vega.

Session 4: Options basics – trading simulation

Using actual past price history attendees will make options trading decisions. By the end of this simulation, you'll understand the difference between calls, puts, being a writer vs. being a holder, in-the-money, at-the-money and out-of-the-money as well as how volatility impacts trading decisions in options.

afternoon session

Session 1: Volatility

This session explores one of the most essential aspects of optionality risk and pricing — volatility. See how it is measured for the underlying commodity as well as the implied volatility of options. Learn how traders use technical analysis to help forecast future volatility trends and review appropriate trading strategies based on this information. Finally, we will examine volatility backwardation and skews, and how they help indicate the most appropriate strike prices and expiration dates for options traders.

Session 2: The Greeks

This session explores the impact of an option strategy's delta, gamma, vega, and theta as the underlying asset moves over time. How does each impact price exposure, time decay (options are a depreciating asset), and volatility?

Session 3: Measuring Market Risk: VaR & Statistics

This overview to the topic of measuring market risk examines the "two schools" of market risk management: the "traditionalist" school which employs tools like stop losses and volumetric exposure limits, and the "portfolio analysis" school which uses mark-to-market, volatilities and correlations of assets within the portfolio. We then look at how statistical analysis applies to the measurement of Value-at-Risk through an examination of volatility, correlations, normal distribution, skewness and kurtosis.

Session 4: Measuring Market Risk: Fat Tails & VaR

This session examines the problems with the assumption of a normal distribution in modeling for VaR and how tools like GARCH and Extreme Value Theory can address the limitations of normal distribution tail assumptions. The session also covers the pros and cons of various tail measurement methodologies.

Course Syllabus – Day Two

morning session

Session 1: Measuring Market Risk: Calculating VaR

In this session attendees will look at the six VaR model inputs (prices, volumes, holding period, confidence level, volatility and correlations) and then walks through the calculation of a portfolio's VaR using the linear model. We'll then look at the pros and cons of using other VaR models (delta-gamma, historical simulation and Monte Carlo simulation).

Session 2: Portfolio Risk Trading Simulation

This trading simulation allows participants to examine market risk of a hypothetical portfolio as prices experience typical daily mark-to-market changes. Through this simulation attendees will gain a thorough understanding of outright price risk, correlation risk and optionality risk.

Session 3: Stress Testing & Liquidity Risk

This session explores various types of liquidity risks as well as how to model and manage such risks. We then address common methods to stress test various VaR models.

Session 4: Trading Simulation – Liquidity Risk

This real-time trading simulation will introduce attendees to the difficulties in managing and modeling for liquidity risk by having them trade illiquid exchange-traded futures contracts on the NYMEX.

afternoon session

Session 1: Case Study - Amaranth

Amaranth is a case study in operational, modeling and liquidity risk. We'll examine Brian Hunter's history prior to joining Amaranth, limitations in their risk metrics and modeling assumptions as well as liquidity risk in the positions Amaranth held.

Session 2: Credit Risk

This overview credit risk session includes best practice issues such as the establishment of a credit evaluation process as well as the establishment and adherence to credit risk limits. In addition, we will examine procedures for credit risk quantification based on various credit risk models including CVaR, Z-Score, KMV and the ratings-based methodologies. We'll close the session by examining various credit risk mitigation tools such as letters of credit, guarantees, collateral and credit derivatives.

Session 3: Case Study - Enron

Aside from accounting fraud, Enron is a case study in trading controls failure. Through an examination of its history, we'll explore how Enron fostered a corporate culture that mitigated its surface-level compliance with best practices for a trading organization.

Session 4: Risk Management Procedures and Trading Controls

We'll close the course by looking at specific best practices and trading controls recommendations to prevent failures in operational risk. These recommendations include separation of duties between front, mid and back-office personnel as well as adherence to the stated risk-reward tolerances of the corporation. Then we examine specific recommendations for trading organizations to avoid a breakdown in trading controls including specific trading room suggestions such as electronic recording of all communications, electronic time stamping of orders and instantaneous entry of all trades into the trading controls system.

Meet YOUR INSTRUCTOR

Mr. Richard Weissman is one of the world's foremost authorities and thought leaders in the fields of derivatives, risk management and technical analysis. He is the author of two books: *Mechanical Trading Systems: Pairing Trader Psychology with Technical Analysis* (Wiley, 2004) and *Trade Like a Casino: Find Your Edge, Manage Risk and Win Like the House* (Wiley, 2011) which was a finalist for the 2012 Technical Analyst Book of the Year Award.

Richard has more than 30 years of experience as a derivatives trader and has provided training and consultation services to traders and risk managers at investment banks, hedge funds, energy and agricultural companies for more than 20 years. He has helped train staff from virtually every major firm that uses derivatives including Morgan Stanley, Citicorp, Exxon-Mobil, Shell, Exelon, Cargill, CFTC, EIA, Platts, Intercontinental Exchange and CME Group. He has been the featured speaker at leading industry conferences throughout the world.



www.amexaagency.com