

# RISK AND RISK MANAGEMENT IN FINANCIAL INSTITUTIONS

24-hour course

# M. Andrew Threadgold

Andrew Threadgold is Head of Market Risk (Americas), Deutsche Bank. He was previously Head of Market Risk (Americas) at Royal Bank of Scotland; Head of Risk and Compliance-Institutional at Fidelity; Group Head of Market Risk at UBS, and Head of Risk Management at Euroclear. He also held various senior positions at JP Morgan both on the risk management side, including Head of Investment Banking Markets Valuation and Risk, CRO at JP.Morgan in New York, and CRO Asia Pacific in Tokyo, and on the business side, including COO for Equity Derivatives in London, and Head of Structured Products Group in New York. He has been an advisor to the Risk Policy Committee at Euroclear.

### **Course Outline**

The objective of this course is to delve in the different types of risks and the framework of risk management. The course will enable Participants to understand the concepts and the jargon and how risk managers must become sceptics.

The course will explain the risk typology and describe in detail credit risk, market risk, liquidity risk, operational risk, and reputation risk. It will articulate the concepts and technical tools used in risk measurement and management, including credit risk algebra, the use of ratings, two-name risk, V@R theory and V@R computation, the use of stress tests, and key risk indicators. It will also illustrate these in respect of a range of transactions or instruments, such as collateral, repos and securities lending, as well as securitization.

It will look at risk both pre and post trades, as well as explain how risk can be reduced or managed through settlement and central counterparty structures.

It will describe risk appetite and risk tolerance and explain how to diversify risk for risk capital purposes.

The course will be probing and fun, using real life case studies and trading games to illustrate the relevance of the theoretical teaching.



#### **Course Outline**

#### I. Preface

- a. What is risk?
- b. Trading game
- c. NCAA Case study
- d. Types of risk
- e. Hedging strategies

### **II. Market Fundamentals**

- a. Outrights & Options
- b. Trading Venues
- c. Long, Short & Flat
- d. Basis Risk
- e. Spot, Forwards & Futures
- f. Settlements
- g. Financing & Borrowing Securities
- h. Repos & Reverses
- i. Economics, Tax, Accounting, Voting

#### III. Market Risk

- a. Metrics
- b. Greeks and Sensitivities
- c. V@R Theory/ V@R Computation
- d. Stress
- e. Notionals
- f. P&L as a risk measure
- g. Ageing & Liquidity
- h. Market Risk Capital

### **IV. Credit Risk**

- a. Types of Credit Risk
- b. Credit Risk Algebra
- c. Credit Ratings & Statistics
- d. Contingent Risk/Two Name Paper
- e. Operating Credit Risk
- f. Settlement Risk & DVP
- g. Collateral & Margin Lending
- h. Retail Credit Risk/Credit Risk Capital

# V. Counterparty Credit Risk and CCPs

### **Counterparty Risk**

- a. Definition/Examples
- b. Derivative Counterparty Risk
- c. CVA
- d. Netting
- e. Rights of Offset
- f. DVA etc.
- g. Trading
- h. Repos & Securities Lending

### **Central Counterparties**

- a. Bilateral Netting/Multilateral Netting
- b. CCP Functions/Novation/Loss Allocation
- c. Pros and Cons

# VI. Securitisation

- a. Basic Concepts (SPV, True Sale,
- Bankruptcy Remote, Tax)
- b. Pass-Through Securities
- c. Slicing & Dicing Time, Credit
- d. CD0<sup>2</sup>
- e. Recovery
- f. Correlation

### VII. Financial Crisis

- a. Fundamental Problems
- b. Root Causes (Regulatory Capital,
- Leverage, Ratings)
- c. US Mortgages
- d. Mortgage Securitization
- e. Super Senior
- f. Risk Measures

# VIII. Liquidity Risk

- a. Meaning of liquidity and leverage
- b. IRS The fundamental insight
- c. Liquidity measures
- d. Sources of liquidity
- e. Solvency and leverage regulation
- f. Collateral Implications
- g. Crises and Confidence

### IX. Operational Risk

- a. Recap of Definition
- b. New Product Approval
- c. KRIs
- d. Loss Data & Capital Modeling
- e. Business Continuity Planning
- f. Risk Assessments

# X. Reputation Risk

- a. WSJ Definition
- b. Measurement
- c. Retail Structured Products
- d. Wholesale Structured Products
- e. Culture
- f. Suitability & Disclosure

### X. Enterprise Risk Management

- a. Bottoms Up R3ACT
- b. Pre-Trade versus Post-Trade
- c. Top Down Risk Appetite
- d. Risk Capital Dealing with
- Diversification Bubbles (Pro-Cyclicality).