

# Market Risk Measurement and Management

## Course in Stockholm

Day 1

09.00 **Welcome and Introduction**

09.15 **1. Risk on Single Instrument**

- Overview of risks
- Duration and convexity
- Key rate duration
- Stock risk and beta value
- Option risk
  - Delta, Vega, Gamma, Theta, Rho
- Mapping of instruments
  - Objective
  - Example with stocks, bonds and derivatives

11.00 **2. Volatility and Correlation**

- Assumptions using volatilities and correlations
- Simple Moving Average
- Exponentially Weighted Moving Average (EWMA)
- GARCH-methods

12.00 **Lunch**

13.00 **2. Volatility and Correlation, continued**

- Workshop - Calculating and interpreting volatility using the three methods

14.00 **3. Value at Risk and Expected Shortfall**

- Delta Normal VaR
- VaR on single instrument
  - Stocks, FX, bonds and derivatives
- Portfolio VaR

16.00 **End of day 1**

Day 2

09.00 **Recap**

09.30 **3. Value at Risk and Expected Shortfall, continued**

- Workshop - calculating and interpreting portfolio VaR
- Historical simulation
- Bootstrapping
- Weighting of data
- Monte Carlo Simulation
- Expected Shortfall
- Using VaR to manage risk
  - Delta VaR, Component VaR and Incremental VaR
- Workshop - historical simulation, Delta VaR, Component VaR and Incremental VaR

12.00 **Lunch**

13.00 **4. Capital Requirements on Market Risk, Backtesting and Future Regulation**

- Standard method
- Internal method
- What can we expect in the future?
  - Fundamental Review of the Trading Book
- Backtesting
  - Objective and methods
  - Regulatory requirements
- Workshop - backtest of portfolio

15.00 **5. Stresstesting**

- Examples of stressed markets
- Stresstest objective and methods
- Experiences from the financial crisis
- Workshop: stresstest of portfolio

16.00 **End of course and evaluation**

### Price

The price of the course is SEK 15.500. The price covers course material, lunch and refreshments.

