Class Outline: Modeling and Market Making in Foreign Exchange

Class 1: Spot markets
  • Structure of the spot market
  • Voice trading
  • Electronic market making
  • Electronic hedging

Class 2: Forward markets
  • Structure of the forward market
  • Relationship to interest rate markets
  • Spot/forward arbitrage and risk management
  • Exchange-traded futures
  • Voice trading
  • Electronic market making
  • Emerging markets and forwards

Class 3: Vanilla option markets (part I)
  • Structure of the option market
  • Volatility interpolation and event risk
  • Vega risk and dimensionality reduction
  • How vega risk affects the definition of delta

Class 4: Vanilla option markets (part II)
  • Managing cross vega in terms of correlation
  • Relative value analyses for volatility
  • Voice trading
  • Electronic market making
  • Exchange-traded futures options

Class 5: Exotic derivative markets (part I)
  • Stochastic volatility models
  • Local volatility models
  • Local volatility/stochastic volatility mixture models
  • Jump diffusion models

Class 6: Exotic derivative markets (part II)
  • Barrier products and mixture models
  • Cross-asset products and copulas
  • Volatility products and volatility risk premium
  • Index products and unhedgeable risk

Class 7: Algorithmic index markets
  • Beta indexes
  • Carry indexes
  • Volatility indexes