COMPUTATIONAL FINANCE

Lecture -1: Course Perspectives

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What the Course Is

Hands On

Quantitative

Tools Oriented

Focus on Useful Valuation and Hedging

Mostly Option Pricing and Related Tools

What the Course Isn't

Plug and Play

Passive

Big Think

Big Picture

Valuation and Hedging Concepts

1. NPV and WACC: not for critical applications
2. Option pricing models
   (a) American options
      i. optimal exercise (e.g. American put)
      ii. behavioral exercise (e.g. mortgages)
   (b) European options
   (c) Path-dependent options
   (d) Real options
      i. Waiting to invest/disinvest
      ii. Hysteresis