



Advanced Foreign Exchange Options by Professor Uwe Wystup

London: 9th & 10th December 2010

This workshop provides TWO booking options

Register to ANY ONE day of the workshop

Register to BOTH days of the workshop and receive £200 discount

Advanced Foreign Exchange Options by Professor Uwe Wystup

Topics covered:

Advanced Foreign Exchange Options by Professor Uwe Wystup is the follow up seminar to the hugely successful, 'Foreign Exchange Exotic Options.'

This practical two-day course by covers the modeling, pricing, hedging and application of FX exotics for use in trading, risk management, financial engineering and structured products.

Important Note:

Delegates are expected to bring their laptops with Excel/VBA installed. Some live examples will be worked out in the seminars. A pricing library for first generation exotics will be distributed to practice.

The Course:

FX exotics are becoming increasingly commonplace in today's capital markets. The objective of this seminar is to develop a solid understanding of the quantitative and modeling issues of the current exotic currency derivatives. This will give participants the mathematical and practical background necessary to deal with all the products on the market.

Presenter:

Professor Uwe Wystup is an extremely experienced practitioner in the field of foreign exchange options, a senior academic and a highly engaging teacher. He has eight years of front office experience as financial engineer, trader and structurer at UBS, Sal.Oppenheimer and Commerzbank and is also Professor of quantitative finance at Frankfurt School of Finance & Management. Uwe is well known for his many publications on FX exotics and related topics, and his 2002 book on Foreign Exchange Risk has become a market standard. His new book on FX Options and Structured Products appeared in November of 2006 as part of the Wiley Finance series.

Prior Knowledge:

Calculus, probability theory, linear algebra, basics of stochastic processes, programming skills. Good knowledge of first generation products like barriers, touch, Asian, lookback, compound.

Who Should Attend?

Quantitative analysts, traders, risk-managers, financial engineers, researchers and anybody interested in quantitative issues in foreign exchange options.

Day 1: Advanced Foreign Exchange Options

Delta and ATM Conventions for Vanilla Options

- Parity and symmetry relationships
- ATM conventions: spot, forward, delta-neutral
- Delta conventions: premium included or excluded
- Spot vs Forward Hedging
- Handling difficulties for long term options and crazy markets
- Exercises

Volatility Smile

- Statistical Methods to build a smile surface: Splines and kernel smoothing
- Interpolation techniques
- Extrapolation techniques compared: Malz, cubic spline, vanna-volga, SABR
- Forward volatility: Analysis of model risk
- Workshop: Greeks in terms of deltas, hedging volatility risk, deriving the strike from the delta with smile for various delta-types

Variance and Volatility swaps

- Pricing and hedging of variance swaps in diffusion models
- Quantifying the risk in the case of models with jumps
- Pricing and hedging of volatility swaps

Pricing and Hedging of First Generation Exotics

- How higher order derivatives influence the price
- Vanna-volga pricing approach
- Case study: One-touch
- Discussion of model risk and alternatives: stochastic volatility
- Workshop: pricing of barriers with smile
- Static, semi-static and superreplication
- Pricing under leverage constraints
- Workshop: structuring and pricing of accumulative forwards

Day schedule:	09:00 – 17:30
Break:	10:30 – 10:45
Lunch:	12:30 – 13:30
Break:	15:15 – 15:30

Day 2: Advanced Foreign Exchange Options

Quantitative Issues

- Efficient computation of Greeks using homogeneity and other tricks
- Efficient computation of Greeks for American Options using Leisen-Reimer Trees
- Workshop: Time Options with Leisen-Reimer Trees
- Local Volatility model and pricing with the smile using PDEs, application to barrier options
- Workshop: Pricing and hedging of discretely sampled partial lookback options (European and American style)

Stochastic Volatility

- Overview of models
- Details for the Heston model
- Closed-form solutions using Transform techniques for: vanillas, digitals, forward starts, faders, discretely monitored barrier options, compound options
- Efficient integration techniques: Gauss-Konrod integration
- Simulation techniques: Avoiding common traps
- Calibration

Jump Diffusion models

- Merton model, general Levy models, models with stochastic volatility and jumps
- Details for the Bates model (normal jumps and double exponential jumps)
- Closed-form solutions using Transform techniques
- Simulation techniques
- Workshop: First generation exotics, target redemption forwards compared in different models

Multi Currency Exotics

- Pricing and Hedging of Quanto-Options
- Hedging performance for known correlation (perfect currency triangle like EUR-USD-JPY)
- Hedging performance for unknown correlation (currency triangle like EUR-USD-XAU)
- Pricing and correlation hedging a basket with Smile: comparing weighted Monte Carlo vs. approximation by the best possible vanilla portfolio

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Workshop Fee:

- Any One day: £1099 + UK VAT
- Both days: £1998 + UK VAT
(Including £200 Discount)
- 70% Academic Discount (FULL-TIME students only.)

Delegate details:

Company:	
Name:	
Position:	
Name:	
Position:	
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Position:	
Department:	
Address:	
Country:	
Phone:	
E mail:	
Date:	
Signature:	

To register please fax the completed booking form to:

Fax: +44 (0) 1273 201360

Flight details:

All delegates flying into London on the morning of the event are reminded that they should arrive 30 minutes before the workshop starts for registration. The hotels West End location is approximately 1 hour from all 3 main London airports, Heathrow, Gatwick and City. Returning flights should equally allow for the events finishing time.

Sponsorship:

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Cancellation:

By completing of this form the client hereby enters into a agreement stating that if a cancellation is made by fax or writing within two weeks of the event date no refund shall be given. However in certain circumstances a credit note maybe issued for future events.

Prior to the two week deadline, cancellations are subject to a fee of 25% of the overall course cost.

Discount Structure:

The discount is available on any day permutation, and can be combined across delegates within the same company (only at the time of booking and not retrospectively).

Registration:

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