



The 2nd Interest Rate Conference: Discounting, Funding, FVA, CSA, Collateral, Options, Smiles, Swaps & Volatility

London: 13th / 14th / 15th March 2013

Due to the huge success of the first Interest Rate Conference, WBS Training are pleased to announce that in London on 13th, 14th & 15th March 2013 our second Interest Rate Conference will be taking place.

The highly popular two streamed format will be retained along with a workshop day being presented on Wednesday 13th March.

Delegates will be able to hop around the two streams and attend our highly popular format of 1 hour 30 minute and 2 hour presentations. Both stream presentation times run concurrently with each other.

Early Bird Discounts: 20% Before 25th January 2013 / 10% Before 22nd February 2013

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THE 2ND INTEREST RATE CONFERENCE PRESENTER LIST

Jesper Andreasen

(Global Head of Quantitative Research, Danske Bank)

Marco Bianchetti

(Head of Financial Modelling & Validation, Market Risk Management, Derivatives Pricing, Intesa Sanpaolo)

Cristin Buescu

(Department of Mathematics, King's College)

Moorad Choudhry

(Acting Head of Strategy and Regulation, Royal Bank of Scotland)

Sylvain Corlay

(Quant Research Group, Bloomberg)

Rohan Douglas

(CEO, Quantifi)

Zlatko Filipovic

(Executive Director, CVA Quant team, UBS)

Marc Henrard

(Quantitative Research, OpenGamma)

Lane Hughston

(Visiting Professor, Department Of Mathematics, University College London)

Wolfgang Kluge

(Head of Options Quants Europe, BNP Paribas)

Paul McCloud

(Head of Vanilla Interest Rate Quants, Nomura)

William McGhee

(Head of Hybrid Quantitative Analytics, RBS)

Rade Plavsic

(Consultant, formerly Executive Director, Fixed Income Trading, UBS)

David Shelton

(Head of The Global FX Quantitative Group, Bank of America Merrill Lynch)

Igor Smirnov

(Head of Fixed Income Quantitative Research Europe, Banco Santander)

Roland Stamm

(Head of Risk Methods / Valuation, Deutsche Pfandbriefbank)

Manlio Trovato

(Head of Rates Quantitative Research, Lloyds Banking Group)

Artem Tsvetkov

(MRMB Trading Quantitative Analytics, ING BANK)

Joerg Zinnegger

(Zinnegger Financial Risk Management Consulting)

PRE-CONFERENCE WORKSHOP DAY

Wednesday 13th March

Trading Interest Rate Derivatives in a Collateral Sensitive Environment by Rade Plavsic & Zlatko Filipovic, UBS

09:00 – 10:30

A Step-by-Step Guide to Building Multiple Discount Curves

- Introduction
- Market Instruments
- Single Currency model
- Multiple discount curves; simplified model
- Blended curves; final model
- Q&A

10:30 – 10:45

Break

10:45 – 12:30

Trading Collateralised Derivatives: A Front to Back Model

- Merging the short end and the long end of the curve
- Multiple discount model with a unified curve
- Risk origination, segregation and aggregation
- Existence of the bank-internal markets
- Collateral management, secured funding and repo markets
- Q&A

12:30 – 13:30

Lunch

13:30 – 15:15

Counterparty Credit Exposure

Introduction:

- Desk Organization
- Definitions and basic concepts

Introduction to Credit Exposure:

- Basic exposure concepts
- Typical exposure measures: PFE, EPE, Expected Shortfall

Counterparty Exposure Computation Techniques:

- Add-ons
- Semi analytical formulas
- Monte Carlo framework and scenario consistency
- Simple simulation models for vanilla products
- AMC framework
- Computing exposure for simple products

Portfolio Modelling:

- Netting vs. no-netting
- Break clauses vs. callability
- Triggers

15:15 – 15:30

Break

15:30 – 17:30

CVA, DVA, Cost of Funding (FVA) and Cost of Collateral

Introduction to CVA:

- Definition and basic concepts
- Default probabilities : Historical vs. Implied

CVA Computation:

- Methodology: Link with EPE
- C-CDS representation
- CVA example computation
- CVA sensitivity to market risks

Cost of Funding (FVA):

- Relationship between FVA, DVA and cost of collateral
- DVA, Own credit

Case Studies:

- Novation of trades in practise taking into account CVA, DVA and FVA
- One-way ins
- One way outs
- Assymetric CSAa
- Fully collateralised
- Uncollaterlised

CVA, FVA Desk Organization

2ND INTEREST RATE CONFERENCE DAY 1

Thursday 14th March
Discounting and Funding, FVA, CSA & Collateral Stream

08:15 – 09:00
Registration

09:00 – 10:30
Consistent No-Arbitrage Derivatives' Pricing Including Funding and Collateral
by Marco Bianchetti, Intesa Sanpaolo

1. Basic Assumptions

- Market Description
- Funding and Collateral
- Replication
- Feynman-Kac Theorem

2. Pricing Formulas Including Funding And Collateral

- Single Currency Case
- Multiple Currency Case

3. Conclusions

10:30 – 10:50
Break

10:50 – 12:30
Rates, Funding and Collateral: Managing Derivatives Liquidity
by Igor Smirnov, Banco Santander

- Simple theoretical framework
- Hidden risks of collateral-implied funding
- Differentiating funding sources
- Uncollateralised funding model

2ND INTEREST RATE CONFERENCE DAY 1

Thursday 14th March
Interest Rate Options, Swaps, Smiles & Volatility Stream

08:15 – 09:00
Registration

09:00 – 10:30
Risk Management in the Presence of Extreme Smiles: Are Simple Products Still Simple?
by Wolfgang Kluge, BNP Paribas

- Reasons for the extreme smiles currently present in EUR swaption markets
- Effects of high vols on high strike swaptions for risk management on products that are (in theory) simple, eg CMS swaps, CMS options
- A simple approach to extrapolate the smile in areas that are not traded (or not arbitrage-free) keeping the traded area unchanged

10:30 – 10:50
Break

10:50 – 12:30
The Conditional Integration Approach to Stochastic Volatility Modeling
by William McGhee, RBS

I. Mean Reverting Local Stochastic Volatility Model

- Issues associated with the SABR approximation
- Developing the conditional integration approach
- SABR Process vs SABR Approximation
- The SABR model in practice
- Mean-reverting Volatility extension

II. The Application of One Factor Exotics Techniques to Two Factor FX Contracts

- The forward smile distribution in the SABR model; the forward smile in local volatility
- Model choice in one factor FX - the behaviour of USDJPY
- Model choice in two factor FX - the behaviour of EURUSD and USDCHF
- Correlated SABR model
- The cross FX smile and simple two factor pricing

III. The Mean Integrated Variance Distribution

- Issues associated with recovering the MIV distribution from option prices (zero correlation)
- Recovering the MIV right tail from low delta options
- Using the PDE Fokker-Planck generated MIV distributions

12:30 – 13:45
Lunch

13:45 – 15:15
Derivatives Funding Requirements from a Replication and a Regulatory Perspective
by Joerg Zinnegger, Zinnegger Financial Risk Management Consulting

- Simple theoretical framework
- Hidden risks of collateral-implied funding
- Differentiating funding sources
- Uncollateralised funding model

15:15 – 15:35
Break

15:35 – 17:05
Funding, Credit and Collateral: beyond CVA, DVA, FVA and inconsistent additive adjustments
by Cristin Buescu, King's College

- Payoff uncertainty in CVA and DVA
- Margining and closeout funding costs
- Hedging strategies funding costs
- Recursive Master Equation
- $FVA=0?$ $FVA=DVA?$
- The illusory additive decomposition

12:30 – 13:45
Lunch

13:45 – 15:15
Numerical Methods for Markovian Projection and Hybrid Models
by Sylvain Corlay, Bloomberg

- 1) Monte Carlo calibration of hybrid models, Local Correlation and SLV by Markovian projection
- 2) An alternative to non-parametric regression
 - A new generalization of B-splines to unbounded support
 - New results on automatic knot selection
 - Over-fitting is avoided by Tikhonov regularization
- 3) An automated regression method with no external tuning

15:15 – 15:35
Break

15:35 – 17:05
Option Anatomy
by Jesper Andreasen, Danske Bank

- Fast and arbitrage free volatility interpolation using a one-time step finite difference grid.
- Volatility extrapolation by expansions in forward volatility: *zabr* before your neighbor.
- Pricing basket and spread options by expansions: option pricing as geodesic distance problems.
- Numerical solution of geodesic distance problems and greeks.
- Feedback from dynamic hedging, local volatility and trading strategies.

17:05 – 18:00

Discounting, Funding, FVA, Collateral, Options, Smiles & Volatility Panel

Chair:

- Cristin Buescu, Department of Mathematics, King's College

Panelists:

- Jesper Andreasen, Global Head of Quantitative Research, Danske Bank
- Rohan Douglas, CEO, Quantifi
- Igor Smirnov, Head of Fixed Income Quantitative Research Europe, Banco Santander
- Manlio Trovato, Head of Rates Quantitative Research, Lloyds Banking Group

Panel Topics:

- Swaps and vanillas become exotics when embedding Credit and Funding risk.
- Backward induction and path dependency: Very hard pricing problem.
- Are funding costs second order effects wrt smile dynamics or viceversa?
- Does it make sense to charge FVA to clients?
- The HW provocative "FVA = 0".
- Should funding be modeled on single trading desks or centralized?
- Is FVA really a price or is it just an internal cost/profitability analysis tool?

18:00

Cocktail Reception

17:05 – 18:00

Discounting, Funding, FVA, Collateral, Options, Smiles & Volatility Panel

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18:00

Cocktail Reception

INTEREST RATE CONFERENCE DAY 2

Friday 15th March
Discounting and Funding, FVA, CSA & Collateral Stream

09:00 – 10:30
Challenges in Implementing CSA Aware Models
by Manlio Trovato, Lloyds Banking Group

- Modeling foundations for collateralised derivatives pricing
- Yield curve building and collateral agreements
- Viewing and managing risk with CSA aware models

10:30 – 10:50
Break

10:50 – 11:40
FVA and Collateral Management in Practice: Recommended Practice for Bank Derivatives Funding Policy
by Moorad Choudhry, Royal Bank of Scotland

- Pricing policy for uncollateralised derivatives
- The derivatives funding policy: cost of funds (COF) of all derivatives-related cashflows
- Cash flow ladder and pricing grid
- Collateral management pricing and funding policy

11:40 – 12:30
New Developments in OIS Discounting
by Rohan Douglas, Quantifi

- Practical challenges of CSA/OIS discounting
- Hedging and sensitivity analysis
- Overcoming performance and stability challenges

12:30 – 13:30
Lunch

13:30 – 15:00
OIS Discounting and Fair Value Hedge Accounting
by Roland Stamm, Deutsche Pfandbriefbank

- Pre-crisis derivatives valuation
- Pre-crisis fair value hedge accounting
- Single currency OIS discounting
- Multi-currency OIS discounting
- Impact on fair value hedge accounting

15:00 – 15:15
Break

INTEREST RATE CONFERENCE DAY 2

Friday 15th March
Interest Rate Modelling, FX, Pricing & Trading Stream

09:00 – 10:30
FX Volatility Modelling With Sovereign & Devaluation Risk
by David Shelton, Bank of America Merrill Lynch

- FX devaluation and the link to sovereign credit risk
- Quanto CDS, survival probabilities and implied devaluation
- Pegged Currencies, Currency Union, Central Bank Intervention and Sovereign Risk

10:30 – 10:50
Break

10:50 – 12:30
Collateral Convexity of Libor and FX Forwards
by Paul McCloud, Nomura

- Next phase issues beyond simple collateral discounting
- How to include correlation and convexity adjustments to FX forwards required for stripping discount factors?
- How can it be integrated into the curve build?

12:30 – 13:30
Lunch

13:30 – 15:00
Lévy Models for Interest Rates and Foreign Exchange
by Lane Hughston, University College London

- Pricing kernel models for interest rate modelling with jumps
- On the relation between risk and return when prices jump
- What about derivative pricing, hedging, and market incompleteness?
- Is lack of completeness an obstacle to pricing?
- Interest rate models with positive jump risk premium
- Prolegomena to any future interest rate models

15:00 – 15:15
Break

15:15 – 16:30

Multi-curves with Stochastic Spread: STIR Futures and their Options

by Marc Henrard, OpenGamma

- Multi-curves frameworks with stochastic spread
- Different approaches to spread modelling
- STIR futures
- Options on futures

Abstract:

The development of the multi-curves framework has mainly concentrated on swaps and related products. By opposition, this contribution focuses on STIR futures and their options. They are analysed in a stochastic multiplicative spread multi-curves framework which allows a simultaneous modelling of the Ibor rates and of the cash-account required for futures with continuous margining. The framework proposes a coherent pricing of cap/floor, futures and options on futures.

End of Conference

15:15 – 16:30

Wrong Way Risk In FX: Building Consistent Multi-Currency Framework For OIS / CVA / DVA

by Artem Tsvetkov, ING Bank

Understanding cross-currency basis and its effect on collateralized deals, incorporating FX wrong way risk in a multicurrency curve framework and CVA/DVA calculations. (To be confirmed)

End of Conference