# **Risk and Modelling Fixed Income Interest Rates**

Examining changes in modelling LIBOR term structures, yield curves, sovereign debt spreads and its implications on hedging risk

Central London, UK

15th & 16th April 2010

# Attending this Premier marcus evans Conference Will Enable You to:

- Examine the effects of the financial crisis on modeling fixed income products
- **Discover** the advancements of making the most out of your yield curve
- Investigate the most current updates on sovereign debt spreads and what this means for the industry
- Assessing investors' appetite on exotic and plain vanilla products in the current climate
- Realising the modeller's role in creating a safer and more secure financial market
- Explore the macroeconomic view in fixed income volatility and systemic risks

### Learn from Key Practical Case Studies:

- Dexia Bank explores the irony in derivatives discounting, FRA and futures as well as the impact on options
- London School of Economics presents a macroeconomic view of the fixed income market and the factors that affect hedge funds' investment decisions as a result of the crisis
- Bloomberg Research discovers the new methodologies to make the most out of your yield curve
- DZ Bank investigates the robust sensitivities and stress testing with Monte Carlo valuation frameworks
- Swiss Finance Institute and the Vontobel Group demonstrates the most effective methods to hedge term structures during the occurance of estimation errors

# STAY AHEAD OF THE TREND IN THE INEVITABLE SHIFT FIXED INCOME MODELLING PARAD



### marcus evans Expert Speaker Panel:

### **Raoul Pietersz**

Co-Head Quantitative Analytics **ABN AMRO** 

#### Marc Henrard

Head of Interest Rates Quantitative Modelling Dexia

# Giovanni Barone-Adesi

Professor of Finance and Head of the Lugano Center

### **Swiss Finance Institute**

### Dr. Nicola Carcano

Head of Product Development and Engineering

### **Vontobel Group**

### Dr. Christian Fries

Head of Model Development, Risk Control

### **DZ Bank**

### Roberto Violi

**Banca Italia Portfolio Management** 

### Andrea Pallavicini

Head of Financial Engineering

### **Banca Leonardo**

**Erik Stjernstrom** 

Financial Product Engineer **Swedbank** 

### Dr. Marco Bianchetti

Senior Quantitative Analyst, Risk Management, Market Risk Pricing & Financial Modelling

### Intesa San Paolo

### Fabio Mercurio

Senior Researcher **Bloomberg LP** 

### Dr. Yuval Millo

Department of Accounting **London School of Economics** 

### Dr. Jörg Kienitz

Head of Quantitative Analysis, Treasury **Deutsche Postbank AG** 

### Dong Qu

Global Head of Quants **UniCredit Group** 

### Dr. Henrik Jönsson

Research Fellow

**Eurandom, Eindhoven University of Technology** 

### Antonio Mele

Professor of Finance

**London School of Economics** 

### Sandrine Ungari

Senior Interest Rates Quantitative Strategist

**Societe Generale** 



# 15th April 2010

09:00 Opening Comments From the Chair

# THE MACRO STRATEGIC VIEW

# 09:10 The Implicit Volatility and Systemic Risk in Fixed Income Interest Rates

- Assessing the risks in the interest rate market by considering the macroeconomic environment
- Importance of awareness on macroeconomics among modellers
- LIBOR models Applications for swaps and options
- The macroeconomic fundamental factors within pricing interest rates and payoffs

#### Reserved:

Senior Representative

### **European Central Ban**

# 09:50 Measuring the inflation component in nominal rates

- Defining a three-factor affine macro-economic framework for the yield curve.
- Including the inflation-linked instruments in the pricing framework
- Measuring inflation risk premia
- How to construct a benchmark for inflation break-evens
- Trading applications

### Sandrine Ungari

Senior Interest Rates Quantitative Strategist

**Societe Generale** 

10:30 Morning Coffee and Networking Break

### A NEW PARADIGM IN MODELLING

### 11:00 Making the Most Out of Your Yield Curve

- Hedging interest rate derivatives using different yield curves
- Market variables Implementing uncertain data into the yield curve effectively
- Testing for instability in factor structure of yield curves
- Discounting and forwarding
- Maximising fixed income attribution

### Fabio Mercurio

Senior Researcher

**Bloomberg LP** 

### 11:30 Panel Discussion:

### Impact of the Financial Crisis on Modelling

- Looking back at past crises and their effects on fixed income interest rates
- Computing on the same yield curve Forward rates, cash flow, discount factors
- Developing the consistency of One-Factor and Two-Factor models
- Comparing market practice versus best practice
- Improving the consistency of models Incorporating the breakdown of LIBOR into current models

### Dong Qu

Head of Quantitative Products

**Unicredit Group** 

### **Erik Stjernstrom**

Financial Product Engineer

**Swedbank** 

### **Raoul Pietersz**

Co-Head Quantitative Analytics

**ABN AMRO** 

# **Booking Line**

Cuong Nguyen

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cuongn@marcusevansuk.com

# 12:10 Robust Sensitivities and Stress Testing with Monte-Carlo Valuation Frameworks

- Discussing the calculation of sensitivities in the context of risk management and risk control
- Looking into conflicts in model assumptions
  - Getting stable and consistent sensitivities
  - Retaining performance
- Discussing stress scenarios and large market data movements

#### Dr. Christian Fries

Head of Model Development, Risk Control

**DZ Bank** 

13:10 Lunch

# A RENEWED SENSE OF PRICING METHODS

### 14:20 Option Valuation in Multivariate SABR Models

- Multivariate SABR models
- Applying the Markovian Projection to Multivariate SABR models
- Applications to Constant Maturity Spread options
- Dependency of cross skews and other dependency measures on the prices
- Comparison with other methods for instance the Copula approach
- Directions of future research

### Dr. Jörg Kienitz

Head of Quantitative Analysis, Treasury

**Deutsche Postbank AG** 

# 15:00 Pricing in Implied Volatility Structures Using the Brace Gatarek Musiela (BGM) Model

- Implementing Monte Carlo pricing with the LIBOR model
- Compare and contrast short rates, instantaneous forward rates (Heath Jarrow-Morton framework), market rates
- Assessing the parameters for the LIBOR model in a volatile environment
- How to deal with the dislocation of the market in the LIBOR model

15:40 Afternoon Tea and Networking Break

### 16:10 Pricing and Hedging in a Double Curve Framework

- Limitations on a standard single curve
- Basis adjustment
- Introducing a micro term structure
- Double curve pricing and hedging strategies

### Dr. Marco Bianchetti

Senior Quantitative Analyst, Risk Management, Market Risk, Pricing & Financial Modelling

Intesa San Paolo

16:50 Closing Comments from the Chair

17:00 End of Day One

Day 2

# 16th April 2010

09:00 Opening Comments From the Chair

### 09:10 The Irony in Derivatives Discounting

- Coherent discounting and LIBOR
- FRA and futures: Not so simple instruments
- Delta risk in multi-curve
- Impact on options

# Marc Henrard

Head of Interest Rates Quantitative Modelling

### THE INVESTOR OUTLOOK ON FIXED INCOME

### 09:50 Discovering the Effects of the Rise in Sovereign Debt Spreads

- Exploring long term government bond rates within the Eurozone
- Sovereign bonds to watch out for What is going on?
- Case Study: The view on Dubai's debt risk
- Recognising widening CDS spreads and its effects
- What does it mean for modellers?

### Antonio Mele

Professor of Finance

**London School of Economics** 

10:30 Morning Coffee and Networking Break

# 11:00 Assessing Hedge Funds' Investment Decisions During the Crisis

- An overwhelming call for for reduced risk exposure
- Are exotics still in demand?
- Delving into Constant Maturity Swap and the market swap rate
- Examining the shift from exotics to plain vanilla products
- How will modellers deal with the change in investor appetite?
- Expectations for 2010

### Dr. Yuval Millo

Department of Accounting

**London School of Economics** 

# 11:40 Active Performance Maximisation in Fixed Income Portfolio Management

- (Manipulation-Proof) performance evaluation and linear (Affine) models of the term structure of interest rates
- Estimation (Model) risk and return predictability in linear term structure models
- Variations in the term structure of risk and macroeconomics
- Enhancing active portfolio management by volatilitytrading strategies

### Roberto Violi

Director

**Banca Italia Portfolio Management** 

12:40 Lunch

# **Booking Line**

Cuong Nguyen

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### **UNCERTAINTY IN INTEREST RATES**

### 14:00 Joint Presentation:

# Hedging The Term Structure In the Presence of Estimation Errors

- Improved hedging schemes
- Hedging bonds with default risk
- Compare different hedging strategies

#### Giovanni Barone-Adesi

Professor of Finance and Head of the Lugano Center **Swiss Finance Institute** 

#### Dr. Nicola Carcano

Head of Product Development and Engineering **Vontobel Group** 

# 14:40 Counterparty Risk Evaluation for Interest Rate Derivatives

- Risk-neutral evaluation of counterparty risk
- Bilateral counterparty risk
- Interest-rate and credit-spread modeling assumptions
- Managing correlations
- Pricing examples and discussion
- Conclusions

### Andrea Pallavicini

Head of Financial Engineering

**Banca Leonardo** 

15:10 Afternoon Tea and Networking Break

### 15:40 Model Risk and Parameter Uncertainty in Asset-Backed Securities Ratings

- Rating asset-backed securities (ABSs)
- Cashflow modelling and the modelling of default and prepayment risks
- Model risk and parameter uncertainty the impact of model choice and parameter assumptions

### Dr. Henrik Jönsson

Research Fellow

### **Eurandom, Eindhoven University of Technology**

16:20 Closing Comments From the Chair

16:30 End of Conference

### **Business Development Opportunities:**

Does your company have solutions or technologies that the conference delegates would benefit from knowing? If so, you can find out more about the exhibiting, networking and branding opportunities available by contacting:

Nisha Vyas, Sponsorship Manager, marcus evans London

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# **Risk and Modelling Fixed Income Interest Rates**

CM044 Please write in **BLOCK CAPITALS** 

#### **Registration Details** marcus evans: Marcus Evans Ltd CONFERENCE: RISK AND MODELLING FIXED INCOME INTEREST RATES Sales Contract

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