

Register by the
20th March 2009
and SAVE £100!

Valuing Toxic Assets & Liabilities

What will be covered:

- ✓ **Real Options in Valuation:**
How Conventional Convertible Loans are Valued
- ✓ **Valuing Toxic Assets:**
Collateralized Debt Obligations (CDOs)
- ✓ **Valuing Toxic Liabilities:**
Embedded Floating-Strike Look-Back Option
- ✓ **Monte Carlo Simulation:**
How to Design, Construct and Operate the Model
- ✓ **Review Different Types of Credit Derivatives**
Single & Multi-name derivatives
 - Replication Products: Total Return Swaps
 - Credit spread derivatives
 - Credit Default Swap (CDS) + Pricing a CDS
 - Collateralized Debt Obligations (CDOs)
 - Synthetic CDOs
- ✓ **Obtaining Default Probabilities**
- ✓ **CDO Rating Methodology**
Default & Non-default risks
- ✓ **Identifying the Limitations of Rating Agencies' CDO Ratings**

Build Your Own Working Model

Reviewing the Structure of Current Monte Carlo Rating Models

You will be guided through the design and specification of a representative Monte Carlo valuation model using tools available within Excel.

You will be able to specify the changes which you feel would be desirable in a valuation model, such as:

- asset correlations which can vary over time
- linking recovery rates in the event of default to the value of the firm at the time
- waterfall structures for both interest and principal
- resolution of problems in modelling CDOs of specific asset-backed securities e.g. residential or corporate mortgage-backed securities.

A simplified working version of such a model will be provided.

Organised by:



an **informa** business



Paper sourced
from sustainable
forests



Elemental
Chlorine Free
(ECF)

28-29 April 2009
23-24 September 2009
The Hatton, London

Register Today!

Tel: +44 (0)20 7017 7790 Fax: +44 (0)20 7017 7824

Email: kmregistration@informa.com Web: www.iir-events.com/toxic

Valuing Toxic Assets

Programme Day One

Introduction

- The credit crunch and the magnitude of recent convertible arbitrage in the Asia-Pacific region
- Valuations for financial reporting purposes: requirements of the accounting standard IFRS 39

Recap of the Use of Real Options in Valuation

- Review of the fundamental differences between Option pricing and DCF Analysis in handling risk
- Visual representation of option pricing models; graphical representation of Put-Call Parity
- Binomial and trinomial lattices; convergence to Black-Scholes model
- Limitations of Black-Scholes in valuing real options such as embedded options in convertible loans
- Conventional convertible loans, and how to value them
 - the use of standard software packages utilizing sophisticated modelling solutions

Learning points:

You will be introduced to the underlying conceptual framework of how conventional convertible loans are valued, together with the pragmatic use of available application software.

Valuing Toxic Liabilities:

Case Study

Embedded Floating-Strike Look-Back Option

- Floating-strike look-back options: the case study of ABC Tool Co. and Scrooge Bank
- Closed form solutions for valuing floating-strike look-back options, and their limitations
- The appraisal process, utilizing stochastic modelling techniques:
 - creating a sequence of daily share prices
 - Using the sequence of share prices to calculate an option value
 - Repeating the generation of share prices: the Monte Carlo simulation process
 - Presenting the Monte Carlo simulation results
 - Interpreting the results from the Monte Carlo process
 - Discussion and conclusions

Design & Construction of the Monte Carlo Simulation Model: Sampling through the Binomial Lattice

- Identifying the key variables to be modelled for valuation and decision-making purposes
- GARCH (1,1) and the analysis, and forecasting, of volatility
- The probabilities and step sizes of up and down movements in share prices
- Calculating successive share prices on a daily basis
- Algorithm used to determine Scrooge bank's choices in exercising options
- The analysis of outputs from a Monte Carlo model:
 - Frequency distributions: analysis and presentation
- Tips, tricks and traps in designing and running simulation models in Excel

Learning points:

You will be provided with a working Monte Carlo simulation model used for the valuation of the floating-strike look-back option which was the subject of the case study. How to design, construct and operate the model will be examined, in detail, together with the techniques employed in analysing the output from the model.

Programme Day Two

Valuing Toxic Assets

Term originally applied to collateralized debt obligations (CDOs) containing significant amounts of sub-prime residential mortgage-backed securities (RMBS) packaged up with higher-grade debt; though as the credit crisis has widened, the term is now more widely applicable.

Introduction

- Rationale for securitisation
- Growth in the credit derivatives market
- Sub-prime collapse: escalating default rates on sub-prime mortgages in the USA
- Progressive collapse in confidence leading to:
 - Global credit crisis
 - Significant bank failures
 - Recessionary knock-on effects on other economies

Different types of Credit Derivatives

- Single name credit derivatives
- Multi-name derivatives
 - Replication Products: Total Return Swaps
 - Credit spread derivatives
 - * Credit default swap (CDS)
 - * Collateralized Debt Obligations (CDOs)
 - * Synthetic CDOs

Credit Risk:

Pricing of a Standard-Form Credit Default Swap

- Matching two cash flow streams: the fee premiums and the contingent payments

Obtaining Default Probabilities

- Structural approach: a clear economic mechanism behind the default process
 - The simple Merton framework
 - KMV expected default frequency model
- Reduced form (or intensity) approach: unpredictability of default
- Combining the advantages of both approaches
 - Linking recovery rate in the event of default to the firm value at default
- Sensitivity of CDS values to default probability estimates
 - Dangers or relying on historical default rates

CDO Rating Methodology

- Default risk embodied in the collateral pool
 - Rating agencies' ability to assess the credit risk in underlying asset pool
- Non-default risks arising from the transactions structure
 - Distribution of cash flows from the asset pool to different groups of note holders

Overview of Earlier Rating Methodologies

- Moody's binomial expansion technique (BET), multiple BET, and correlated binomial methods; alternative diversity scores (ADS) for multi-sector CDOs, incorporating correlations

Register Today!

Tel: +44 (0)20 7017 7790 Fax: +44 (0)20 7017 7824

Email: kmregistration@informa.com Web: www.iir-events.com/toxic

ets and Liabilities

The Monte Carlo Approach

- Comparison of MC models used by rating agencies: Fitch, Moody's and Standard & Poor's
- Simulation of default events within a simplified structural credit risk model
 - Default occurs when the value of an obligor's assets falls below that of its liabilities
- Changes in the asset values for each obligation are assumed to be log-normally distributed
 - A correlated standard normal random variable drawn for each obligation to represent normalized change in obligor's asset value over the appropriate horizon;
 - *Note: important to use correlation of the underlying assets for this step*
- Credit rating of each obligation's assets used to infer default probability
 - Default probability gives 'distance to default' threshold (DD)
- If appropriate time horizon is less than the DD, a default is indicated
 - Loss or recovery is sampled from appropriate distribution
- Accumulate default losses over all assets in the pool
- Cash flow analysis: allocate default losses to the most junior available tranche until reach its loss absorption capacity, then progress to successively more senior tranches
- *Note: results of the cash flow analysis may feed back into the credit model in the form of adjustments made regarding particular model assumptions*
- Non-quantitative factors are also taken into account by the rating agencies, at this stage
- Finally, all of the information is aggregated and mapped into a single alphanumeric tranche ratings benchmarked to the historical performance of corporate bonds

Limitations of Rating Agencies' CDO Ratings

- Single tranche ratings;
 - no indication of frequency distribution of anticipated outcomes
- Pre-specified (i.e. fixed) inter-industry sector asset correlations
- Intra-sector asset correlations?
- Unstable CDO ratings:
 - amplifying effect of extrapolating recent raw default experience
- Still require tools/models to indicate appropriate market values for each tranche
 - Reference to ABX and other indices can help, but still require valuation model

Specification & Design of MS Excel Based Modelling of Monte Carlo Model for Valuing a Cash-Flow CDO

Learning points:

Delegates will review the structure of current MC rating models and specify the changes which they feel would be desirable in a valuation model.

Such changes could include:

- asset correlations which can vary over time
- linking recovery rates (in default) to the value of the firm at the time
- waterfall structures for both interest and principal
- resolving problems in modelling CDOs of specific ABSs e.g. residential or corporate mortgage-backed securities.

Delegates will be guided through design and specification of a representative MC valuation model using tools available within Excel. A simplified working version of such a model will be provided.

*Suitable intervals will be taken for breaks and lunch throughout the day.
Welcome coffee will be served at 8:30 on both conference days.
The course starts promptly at 9:00 and will finish by 17:00pm.*

Course Format

The illustrative "toxic" complex financial instrument chosen as the basis for the course is a floating-rate look-back option. The case is based upon one particularly pernicious example which was found embedded in a fairly large convertible loan facility in the Asia-Pacific region. Similar convertible loan facilities have been marketed successfully in the region over the period of the past couple of years.

The focus will be on:

- Accurately profiling the risk inherent in complex financial instruments
- Assigning real-world values reflecting that risk
- Identifying the disclosure requirements associated with the assets and/or liabilities

The course would particularly help in valuing, and then reporting:

- Complex Financial Instruments
 - Embedded Options in Convertible Loan Facilities
 - Floating Rate Lookback Options
 - CDOs
- Pension Fund Liabilities

The course is aimed at:

- Actuaries
- Ratings agencies
- Corporates – CFO, FD, Treasurer
- Banks / Corporate Finance Boutiques
- Funds



Requirements

Each participant will be required to bring a laptop running Microsoft Office with a USB Port to the seminar.

(if you cannot bring your own laptop – please notify us in advance and one will be provided)

The case study of a toxic embedded option in a large convertible loan facility is used as the basis for introducing the role of Monte Carlo simulation in the appraisal of complex financial instruments. Delegates are introduced to the limitations of closed form solutions in pricing complex options such as the floating-strike look-back option examined in the case study, and are shown how to design and construct more appropriate Monte Carlo simulation models and to analyse their outputs. Such models enable the valuation of such complex instruments for decision-making and financial reporting purposes. Importantly, analysis of the model outputs discloses the risks associated with such instruments and reveals the likely variability in the key factors such as option value and the value of the loans which might be possible to draw down. Ideally, disclosure of these risks should take the form of probability distributions.

The above lessons are then applied to the review of how one might value the types of complex financial products represented by collateralized debt obligations (CDOs), which could include significant amounts of sub-prime residential mortgage-backed securities (RMBS) packaged up with higher-grade debt. The Rating Agencies developed large sophisticated credit rating models utilizing Monte Carlo simulation techniques to rate the various tranches within CDOs. These models allowed CDOs to be widely marketed as investment opportunities to banks and other institutions around the world. Mispricing of such CDOs, however, resulted in the sub-prime mortgage crisis in the USA. This, in turn, triggered the recent progressive collapse in confidence in the banking system, worldwide.

The challenges of valuing such complex financial instruments under conditions of market turmoil are analysed for credible solutions. In this context, you will be shown how to develop a cash-flow CDO model in Excel using rating agency loss data and which embraces complex waterfall structures for both interest and principal. The complexity of the rating agency and Excel models are compared, as are their outputs. Analysis of the Excel model output allows disclosure of the risks associated with investments in CDOs, in the form of probability distributions to show the range of likely outcomes.

Your Course Leader: Biographic Details

Hugh Osburn previously held a senior position in a major international valuation consultancy and, prior to that, held financial management positions with major multi-national companies and worked in a number of countries throughout Europe. After graduating from Cambridge University with an MA in Natural Sciences Hugh went on to complete an MSc in Mining Systems before gaining an MBA from Manchester Business School. More recently he was Vice President, International Financial Appraisal within an international valuation consultancy. Hugh is the proprietor of ADOPT Training, providing training for financial valuations, and also provides valuation assistance and support to other valuation firms.

Hugh is a Fellow of the Chartered Institute of Management Accountants, an Accredited Senior Appraiser (Business Valuation) of the American Society of Appraisers, and is a Chartered Financial Analyst.

Register Today!

Tel: +44 (0)20 7017 7790 Fax: +44 (0)20 7017 7824

Email: kmregistration@informa.com Web: www.iir-events.com/toxic

Valuing Toxic Assets & Liabilities

28-29 April 2009, The Hatton, London

23-24 September 2009, The Hatton, London

KM2193

KM2194

Please quote the below VIP code when registering

WHEN AND WHERE

KM2193
28-29 April 2009

KM2194
23-24 September 2009

Venue: etc.venues
The Hatton
51-53 Hatton Garden
London, EC1N 8HN
Tel: 020 7421 9138
Fax: 020 7242 1818

Delegates are responsible for the arrangement and payment of their own travel and accommodation. IIR is holding a number rooms at the Excelsior. Delegates should book direct stating they are a conference delegate, email: exhkg-reservations@mohg.com. Please note conference fees do not include hotel accommodation or travel costs.

PERSONAL DETAILS

1st Delegate Mr/Mrs/Ms

Job title _____ Department _____
Telephone _____ Fax _____
Email _____

Yes! I would like to receive information about upcoming events by email. By giving you my email address I am giving ONLY IIR companies the permission to contact me by email



Yes! I would like to receive information about future events and services via fax

Signature: _____

2nd Delegate Mr/Mrs/Ms

Job title _____ Department _____
Telephone _____ Fax _____
Email _____

Yes! I would like to receive information about upcoming events by email. By giving you my email address I am giving ONLY IIR companies the permission to contact me by email

3rd Delegate Mr/Mrs/Ms

Job title _____ Department _____
Telephone _____ Fax _____
Email _____

Yes! I would like to receive information about upcoming events by email. By giving you my email address I am giving ONLY IIR companies the permission to contact me by email

Name of Line Manager Mr/Mrs/Ms

Job title _____ Department _____
Telephone _____ Fax _____
Email _____

Booking Contact Mr/Mrs/Ms

Job title _____ Department _____
Telephone _____ Fax _____
Email _____

Our statement of integrity can be found on our website at www.iir-events.com/IIR-conf/PrivacyPolicy.aspx

COMPANY DETAILS FOR INVOICING PURPOSES

Company Name _____

Postal Address _____

Telephone _____ Fax _____

Nature of Business _____

Billing Address (if different from above address) _____

Email Billing Address _____

Unable to Attend - Event Documentation

Nothing compares to being there – but you need not miss out! Don't delay and order your documentation today. Simply tick the box, complete your details above and send the form along with payment. We regret Documentation Orders can only be processed on receipt of Credit Card details

Valuing Toxic Assets & Liabilities (KM2193 / KM2194) - £199 (no VAT)
We regret documentation orders can only be processed on receipt of credit card details

Data Protection

The personal information shown on this form, and/or provided by you, will be held on a database and may be shared with other companies in the Informa Group in the UK and internationally. If you do not wish your details to be available to other companies in the Informa Group please contact the Database Manager at the above address, Tel +44 (0)20 7017 7077, Fax +44 (0)20 7017 7828 or email: integrity@iirtld.co.uk. Occasionally your details may be obtained from, or made available to, external companies who wish to communicate with you offers related to your business activities. If you do not wish to receive these offers, please tick the box:

What Happens If I Have to Cancel?

Confirm your CANCELLATION in writing (letter or fax) two weeks or more before the event and receive a refund (if applicable) less a 10% + VAT service charge. Should you cancel between two weeks and one week before the event then you will receive a refund (if applicable) less a 50% +VAT service charge. Regrettably, no refunds can be made for cancellations received less than one week prior to the course. A substitute delegate is welcome at no extra charge

FIVE EASY WAYS TO REGISTER

Telephone:

+44 (0) 20 7017 7790
Please remember to quote
KM2193



Mail:

this completed form
together with payment to:
Richard Morgan
Informa Customer Services
PO Box 406
West Byfleet
Surrey KT14 6WL

Web:
www.iir-events.com/toxic

Fax:

Complete and send this
registration form to:
+44 (0)20 7017 7824



Email:

kmregistration@informa.com



Payment should be made within 14 days of registration.

All registrations must be paid in advance of the event.

Your VIP code is on the address label. If there is no VIP code, please quote

KM2193 / KM2194

HOW MUCH?

Book By 20th March 2009 and SAVE £200

Please tick	Code	Date	Price
<input type="checkbox"/> Valuing Toxic Assets	KM2193	28-29 April 2009	£1299 + VAT = £1483.85
<input type="checkbox"/> Valuing Toxic Assets	KM2194	23-24 Sept 2009	£1299 + VAT = £1483.85

Book After 20th March 2009

Please tick	Code	Date	Price
<input type="checkbox"/> Valuing Toxic Assets	KM2193	28-29 April 2009	£1399 + VAT = £1608.85
<input type="checkbox"/> Valuing Toxic Assets	KM2194	23-24 Sept 2009	£1399 + VAT = £1608.85

THREE EASY WAYS TO PAY

Cheque. Enclosed is our cheque for £ in favour of IIR Ltd

Please ensure that the Reference Code **KM2193 / KM2194** is written on the back of the cheque

Credit Card. Please debit my: VISA AMEX MASTERCARD DINERS

Card No: _____ CVVNumber _____

3 digit security code on the reverse of card, 4 digits for AMEX card

Expiry Date: _____ Signature: _____

please note that credit cards will be debited within 7 days of your registration on to the conference

BANK TRANSFER – Full details of bank transfer options will be given with your invoice on registration

Incorrect Mailing

If you are receiving multiple mailings or you would like us to change any details or remove your name from our database, please contact our Database Department on +44 (0)20 7017 7077 quoting the reference number printed on your mailing label. Alternatively, fax this brochure to the mailing department on +44 (0)20 7017 7828 or e-mail us on integrity@iirtld.co.uk. Amendments can take up to 6 weeks so please accept our apologies for any inconvenience caused in the meantime.

Additional Requirements

Please notify IIR at least one month before the conference date if you have any additional requirements e.g. wheelchair access, large print etc.