

LDI/ALM Workshop

7city Learning Centre, London, EC1Y 4UP
30 June 2008 (Afternoon)

Workshop timings:

13.00hrs
13.30 -15.00 Gautam Mitra
15.00 -15.30 Tea
15.30 -16.30 Michael Dempster
16.30 Close

In recent years the pension fund industry has adopted tailor-made asset and liability management (ALM) strategies, also called Liability Driven Investment. The aim of LDI strategies is to match and outperform a pension fund's liability stream and at the same time take into account country-specific regulations. Furthermore, some additional risks have to be measured and directly managed in LDI solutions: inflation risk, interest-rate risk, contribution risk of the pension plan's sponsor and no doubt the longevity risk of its members. This half day in-depth workshop will provide insight into "what" is the problem and "how" to analyse the challenging pension problem by showing real life problems as well as research led approaches by experts from both academia and industry. Different methodologies and strategies including alternative investments (i.e. hedge funds), the latest technologies (i.e. optimisation software) and enhancing financial products (i.e. longevity bonds, swaps or swaptions) are introduced and discussed. The workshop is targeted at quantitative and technical analysts, risk analysts, pension fund managers and academics and will be presented in an interactive format with ample time for question and answer sessions and discussions.

Benefits of Attending

Participants will gain insight into understanding ALM/ LDI strategies and shown how to analyse the challenging pension problem. The presentations will be illustrated by real life problems as well as research-led approaches by experts from both academia and industry.

Target Audience

The workshop is targeted at quantitative and technical analysts, risk analysts, pension fund managers and academics.

Part A:

A Review of Modelling and Solution Methods for ALM/Pension Fund Planning

Gautam Mitra and Katharina Schwaiger, CARISMA/Brunel University

Asset and Liability Management (ALM) is used in many areas of financial planning and especially in Pension Fund Planning. We review the ALM models considering exposures to interest rate risk, inflation risk and longevity risk. The ALM pension fund planning problem is formulated as alternative mathematical programs, which are:

- (1) a deterministic linear programming (LP) model,
- (2) a stochastic programming (SP) model,
- (3) a chance-constrained programming (CCP) model and
- (4) an integrated chance-constrained programming (ICCP) model.

In the deterministic setting we minimise the PV01 deviations of assets and liabilities and at the same time minimise initial injected cash, while in the stochastic case we minimise net present value of deviations of assets and liabilities and at the same time minimising initial injected cash. In the CCP and ICCP models we directly incorporate risk aversion.

We discuss methods of testing and validating these models, through back-testing and simulation methods.

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Part B:

Institutional Asset Liability Management

M A H Dempster, Centre for Financial Research, Judge Business School, University of Cambridge & Cambridge Systems Associates Limited

- Asset Liability Management
- Derivative solutions
- Dynamic stochastic programming solutions
- Guaranteed returns for variable annuities and defined contributions
- Risk profiling for defined benefit pension schemes

About the presenters:

Michael A H Dempster, Professor of Finance Emeritus & Director, Centre for Financial Research, Judge Business School, University of Cambridge. Michael Dempster has taught and researched in leading universities on both sides of the Atlantic and is currently Editor-in-Chief of Quantitative Finance. He has been consultant to a number of global financial institutions and is regularly involved in executive education in financial engineering and risk management around the world. Author of over 100 published research articles; his recent books include Stochastic Programming, Derivative Securities (with S R Pliska) and Risk Management: Value at Risk and Beyond. He is currently Managing Director of Cambridge Systems Associates Limited, a financial consultancy and software company.

Gautam Mitra, CARISMA/Brunel University, is an internationally renowned research scientist in the field of Operational Research in general and computational optimisation and modelling in particular. He has developed a world class research group in his area of specialisation with researchers from Europe, UK & USA. He has published three books and over ninety refereed research articles. He was Head of the Department of Mathematical Sciences, Brunel University between 1990 and 2001. In 2001 he has established CARISMA: The Centre for the Analysis of Risk and Optimisation Modelling Applications. CARISMA specialises in the research of Risk and Optimisation and their combined paradigm in decision modelling. Professor Mitra is also a Director of UNICOM Seminars and UNICOM Consultants (trading as OptiRisk Systems Ltd). Many of the research results are exploited through these companies.

Katharina Schwaiger, CARISMA/Brunel University is a PhD Research Associate at CARISMA. Her research interests are mainly in the area of Financial Mathematics, in particular Asset and Liability Management, Liability Driven Investment as applied to Pension Funds. Her work experience includes internships in Applied Research, Equities and Asset Management at Metzler Investments and Metzler Asset Management Frankfurt, Germany and sponsored research of the topic Liability Driven Investment at Insight Investments London. She is also a modelling consultant with OptiRisk Systems.

RISK CONTROL STRATEGIES FOR HEDGE FUNDS AND PROGRAM TRADING

Conference and Workshops Registration Details

1st Delegate

Dr/Mr/Ms/Mrs.....First Name.....

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Surname.....

Position.....

Head of Department.....

2nd Delegate

Dr/Mr/Ms/Mrs.....FirstName.....

Surname.....

Position.....

Head of Department.....

Contact Details:

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[] **Conference:** RISK CONTROL STRATEGIES FOR HEDGE FUNDS AND PROGRAM TRADING (1-2 July)

[] **Workshop:** Robust Portfolio Optimisation (AM, 30 June)

[] **Workshop:** LDI/ALM (PM, 30 June)

[] **Workshop:** Performance Measures and Structured Product/Coherent Measures (AM, 3 July)

[] **Workshop:** RavenPack workshop: News Analytics and Financial Modellings (PM, 3 July)

Registration Fee

Early Bird (Until 1 June 2008)				
	1 Day	2 Day	3 Day	4 Day
Industry	£350	£625	£900	£1200
Academic	£145	£275	£425	£550
Student	£60	£120	£180	£240

After 1 June 2008				
	1 Day	2 Day	3 Day	4 Day
Industry	£450	£775	£1250	£1500
Academic	£195	£375	£575	£750
Student	£75	£150	£225	£300

* All prices subject to 17.5% UK VAT

Five Easy Ways to Register

1. **On-line Registration**, www.optirisk-systems.com/carisma2008
2. **Fax** this page +44 (0) 1895 813 095 to book your place
3. **Post to:** UNICOM , UNICOM R&D House, One Oxford Road, Uxbridge, Middlesex UB9 4DA, UK
4. **Email** info@unicom.co.uk
5. Alternatively, **telephone** UNICOM on +44(0) 1895 256 484 to provisionally reserve your place

Registration Details

Registration and Cancellation Terms & Conditions

The registration fee for the event covers the following: Attendance, copy of the documentation, lunches and light refreshments. Accommodation is not included. Detailed delegate information will be sent to you approximately two weeks before the event. Payment is required in advance of the event or at the latest, paid at the event. All invoices carry a 10% surcharge, which is payable if the fee remains unpaid on the day of the event.

Payment may be made by credit card, cheque or bank transfer – please tell us your preference at the time of booking.

WHAT HAPPENS IF I HAVE TO CANCEL?




Confirm your CANCELLATION in writing up to 15 working days before the event and receive a refund less a 10% + VAT service charge.

Regrettably, no refunds can be made for cancellations received less than 15 working days prior to the event and the invoice will remain due.

SUBSTITUTIONS are welcome at any time.

The organisers reserve the right to amend the programme if necessary.

INDEMNITY: Should for any reason outside the control of OptiRisk Systems, the venue or the speakers change, or the event be cancelled due to industrial action, adverse weather conditions, or an act of terrorism, OptiRisk Systems will endeavour to reschedule, but the client hereby indemnifies and holds OptiRisk Systems harmless from and against any and all costs, damages and expenses, including attorneys fees, which are incurred by the client. The construction validity and performance of this Agreement shall be governed by all aspects by the laws of England to the exclusive jurisdiction of whose court the Parties hereby agree to submit.

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