11' Longevity LYON

The eleventh international Longevity Risk and Capital Markets Solutions Conference

September 7/8/9, 2015
LYON, Cité Internationale - Centre de Congrès
Car park P2

HOST

Institut de Science Financière et d'Assurances - ISFA, University Claude Bernard Lyon 1

CO-HOSTS

Laboratoire de Sciences Actuarielle et Financière - ISFA, University Lyon 1
Laboratoire de Probabilités et Modèles Aléatoires - LPMA, University Paris 7
Pension Institute, Cass Business School, City University London
LoLitA ANR Research Project Team - Longevity with Lifestyle Adjustments

www.cass.city.ac.uk/longevity-11

ISFA · Laboratoire SAF · LPMA · Pensions Institute · LoLitA · Institut Louis Bachelier

CONFERENCE AGENDA

Day 1 : Monday, September 7
ACADEMIC DAY

07:45 Registration

08:30 Welcome Coffee

09:00 Opening Ceremony
Nicole EL KAROUI & Stéphane LOISEL

09:15 Ronald LEE, Berkeley
The Lee-Carter Model: an update and some extensions

10:00 Coffee Break

10:30 Pietro MILLOSSOVICH, CASS Business School
A comparative study of two-population mortality models for the assessment of basis risk in longevity hedges

11:00 Alexandre BOUMEZOUED, University Paris 6
Population dynamics for longevity risk

11:30 Quentin GUIBERT, SAF Laboratory
Non-Parametric Inference of Transition Probabilities Based on Aalen-Johansen Integral Estimators for Acyclic Multi-State Models: Application to LTC Insurance

12:00 Lunch Break

13:30 Gilles PAGES, University Paris 6
Multilevel methods for nested Monte Carlo simulation

14:15 Academic Day Parallel Session
- Mortality Modelling 1
- Longevity Risk Management 1
- Mortality Modelling 2
- Mortality Modelling 3

16:00 Refreshment Break

16:30 Henning BOHN, UCSB
Intergenerational risk sharing and aggregate longevity risks

17:15 Ragnar NORBERG, SAF Laboratory
Risk sharing within and across generations

17:45

Day 2 : Tuesday, September 8
LONGEVITY 11 CONFERENCE

07:45 Registration

08:00 Welcome Coffee

08:30 Opening Ceremony
Stéphane LOISEL, David BLAKE & Nicole EL KAROUI

09:15 Denis JACQUAT, Assemblée Nationale
Longevity and aging issues in France: a Member of Parliament's perspective

09:35 Jessica MOSHER, OECD
Mortality Assumptions and Longevity Risk

10:05 Ronald LEE, Berkeley
Widening socioeconomic differences in mortality and the progressivity of public pensions and other programs for the elderly

10:50 Coffee Break — Sponsored by EY Building a better working world

11:20 Tom KIRKWOOD, Newcastle University
Why and how are we living longer ?

12:05 Laurent SCHWARTZ, École Polytechnique
Cancer mortality: towards a structural change ?

12:50 Lunch Break — Sponsored by RGA®

Plenary session sponsored by SOCIETE GENERALE Corporate & Investment Banking

14:20 André DE VRIES, RGA
Capital motivated longevity transactions in practice

14:50 Guy COUGHLAN, Universities Superannuation Scheme
Longevity – it's academic

15:20 Avery MICHAELSON, Societe Generale Corporate & Investment Banking
Indexed vs. Indemnity Longevity Hedges

15:50 Refreshment Break — Sponsored by SOCIETE GENERALE Corporate & Investment Banking

16:20 Parallel Session I
- Mortality Modelling 4
- Longevity Risk Management 2
- Longevity Products 1
- Other 1

17:40

LOCATION

Plenary talks & Round tables : "Grand salon Prestige Gratte-ciel",
Breaks : "Tête d'Or" floor
Parallel sessions:
- Grand salon Prestige Gratte-Ciel
- Salle Gratte-Ciel 1
- Salle Gratte-Ciel 2
- Salle Gratte-Ciel 3

CONFERENCE AGENDA

Day 2 : Tuesday, September 8
GALA

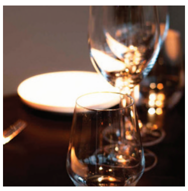
18:45 Cruise and Cocktail on the Rhône to the dinner place at Confluence

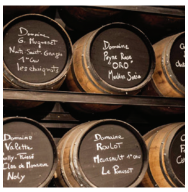
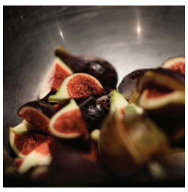
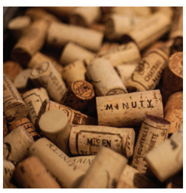
Discover the architectural heritage of the city of Lyon from one of its two rivers
Boarding: Quai Charles De Gaulle
Direction: From the convention center, walk between car parks P1 & P2, cross the road and go down on the dock, to the right.

20:30 Gala dinner at Confluence
Le Selcius Restaurant

French gastronomy in the new trendy district of Lyon
Welcome speech by Dale HALL, SoA

Gala dinner sponsored by SOCIETY OF ACTUARIES

23:00 to 00:00 Several organized trips back to the convention center hotels

Optional stops in Lyon city center

Day 3 : Wednesday, September 9
LONGEVITY 11 CONFERENCE

07:45 Registration

08:00 Welcome Coffee

08:30 Parallel Session II
- Mortality Modelling 5
- Longevity Risk Management 3
- Reverse Mortgages 1
- Annuities 1

09:45 Coffee Break — Sponsored by SCOR

Plenary session sponsored by SCOR

10:15 Jean-Marie ROBINE, INSERM
Update on the adult longevity revolution

10:45 Michel DENUIT, University of Louvain
Finite portfolio approximations

11:15 Round Table « Big Data & Longevity »
Frédéric PLANCHET, SAF Laboratory
Alexander ZHAVORONKOV, Johns Hopkins University
Pierre-Henri TAVOILLOT, Paris Philosophy College

12:15 Lunch Break — Sponsored by Milliman

13:45 Parallel Session III
- Mortality Modelling 6
- Longevity Risk Management 4
- Pension Buyouts/Annuity Demand 1
- Annuities 2

15:10 Round Table « Longevity and long term care »
Hélène XUAN, Chaire Transition Démographiques
Serge GUERIN, ESG
Jean-Michel RICARD, Siel Bleu

16:00 Refreshment Break — Sponsored by PFI Bring Your Challenges

Plenary session sponsored by PFI Bring Your Challenges

16:30 Mark FLINT, SCOR
The impact of recent regulatory change on the UK individual annuity market

17:00 Philip SIMPSON, Milliman
Recent developments in the UK longevity market

17:30 Amy KESSLER, Prudential Financial
The longevity risk transfer market at $250 billion - innovation, globalization and growth

18:00 Closing Ceremony

18:15

CONTENT OF

PARALLEL SESSIONS

MONDAY, SEPTEMBER 7 / 14:15 / ACADEMIC DAY PARALLEL SESSION

Mortality Modelling 1

Yang LU	Large duration asymptotics in bivariate survival models with unobserved heterogeneity
Ning ZHANG	Analysis on mortality cohort effect of birth year in view of differential geometry and its application
Frank Van BERKUM	Bayesian portfolio specific mortality

Longevity Risk Management 1

Xavier MILHAUD	Prediction of lifetimes by tree-based estimators
Luca REGIS	Basis risk in static versus dynamic longevity risk hedging
Caroline HILLAIRET	Affine long term yield curves: an application of the Ramsey rule with progressive utility

Mortality Modelling 2

Héloïse LABIT HARDY	Cause-of-death mortality: A study of a heterogeneous portfolio dynamic
Séverine ARNOLD	Time-evolution of age-dependant mortality patterns in mathematical model of heterogeneous human population
Julien TOMAS	A credibility approach of the Makeham mortality law

Mortality Modelling 3

Edouard DEBONNEUIL	Do actuaries believe in longevity deceleration?
Guillaume BIESSY	A continuous time semi-markov with 3 states and 4 transition laws to estimate the biometrics laws associated with a long-term care insurance portfolio
Olivier LOPEZ	Modeling the evolution of the dependence structure between two lifetimes
Andres VILLEGAS	StMoMo: An R package for stochastic mortality modelling

TUESDAY, SEPTEMBER 8 / 16:20 / PARALLEL SESSION I

Mortality Modelling 4

Yahia SALHI	A generalized linear mixed modeling approach for two-population mortality modelling
Martin GENZ	Extension, compression, and beyond - A unique classification system for mortality evolution patterns
Jack C. YUE	Mortality models and longevity risk for small populations

Longevity Risk Management 2

Kenneth ZHOU	On discrete-time geek hedging of longevity risk
Wen-Yen HSU	Multi-Country Mortality Modeling and Hedging Longevity Risk: Time Series vs. Panel Approach
Richard MACMINN	The choice of trigger in an insurance linked security: The mortality risk case

Longevity Products 1

Jorge BRAVO	Valuation of longevity linked annuities
Federica TEPPA	Friends, family and framing: An international comparison of longevity expectations formation
James RISK	Statistical emulators for pricing and hedging longevity risk products

Other 1

Pawel ROKITA	Longevity and other types of risk - an integrated approach to measuring risk of household financial plan
Kevin WANG	Using the Taiwan national health insurance database to design no claim discount in hospitalization
Farid FLICI	Longevity and life annuities reserving in Algeria: Comparison of some mortality models

CONTENT OF PARALLEL SESSIONS

WEDNESDAY, SEPTEMBER 9 / 08:30 / PARALLEL SESSION II

Mortality Modelling 5

Andrew CAIRNS	Multi-population mortality modelling
Johannes SCHUPP	Modeling trend processes in parametric mortality models
Yanxin LIU	It´s all in the Hidden States : A hedging method with an explicit measure of population basis risk

Longevity Risk Management 3

Sharon S. YANG	Analysis of Optimal Hedging Strategies for Dealing Longevity Risk and Catastrophic Mortality Risk
Jerry HUANG	A practical approach of natural hedging for insurance companies
Cheng WAN	Hedging the longevity risk: A study of longevity basis risk in Switzerland

Reverse Mortgages 1

Adam SHAO	Managing retirement risks with reverse mortgage loans and long-term care insurance
Yung-Tsung LEE	Valuation of reverse mortgage portfolio - A dynamic copula approach
I-Chien LIU	Profitability analysis and risk profile for reverse annuity mortgages

Annuities 1

Sandy BRUSZAS	Unisex princing of german participating life annuities - boon or bane for customer and insurance company ?
Etienne MARCEAU	The impact of longevity on the hedge efficiency of guaranteed lifetime withdrawal benefit (GLWB) products
David SMITH	The effect of longevity drift and investment volatility on income sufficiency in retirement

WEDNESDAY, SEPTEMBER 9 / 13:45 / PARALLEL SESSION III

Mortality Modelling 6

Steven BAXTER	A practical framework for assessing basis risk in index-based longevity hedges
Anthony MEDFORD	Best practice life expectancy: An extreme value approach
Marius PASCARIU	The double-gap life expectancy forecasting model

Longevity Risk Management 4

Andrew HUNT	Pricing longevity-linked options
Enareta KURTBEGU	Replicating inter-generational risk sharing in financial market
Pierre VALADE	Reinsurance, a solution to manage longevity risk

Pension Buyouts/Annuity Demand 1

Yijia LIN	Pension risk management with funding and buyout options
Patrick BROCKETT	Understanding longevity risk annuitization decision-making: An interdisciplinary investigation of financial and nonfinancial triggers of annuity demand
Ayse ARIK	Pricing of pension buy-outs under dependence assumption

Annuities 2

Jakob KLEIN	Managing longevity risk: Tontines vs. annuities
Jennifer Li-Ling WANG	Valuation of variable long-term care annuities with guaranteed lifetime withdrawal benefit: A variance reduction approach
Min JI	Model and parameter uncertainty in pricing deep-deferred annuity

CONFERENCE

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