

2^{ème} SEMINAIRE PARISIEN DE VALIDATION DES MODELES FINANCIERS

27 mai 2010

Institut Louis Bachelier, Palais Brongniart, 28 Place de la Bourse, 75002 Paris

Programme :

15h00 – 16h00. **Marco Avellaneda** (Courant Institute, NYU)

Recent Advances in Modeling Central Counterparty Risk

16h00 – 16h15. Questions

16h15 – 16h30. Pause

16h30 – 17h30. **Etienne Koehler** (Barclays Capital)

Modélisation: Une précision utopique?

17h30 – 17h45. Questions

17h45. Cocktail

Deadline for registration 24/05/2010
Reply to ModelValidation@zeliade.com

Abstracts :

Recent Advances in Modeling Central Counterparty Risk

We report on a new framework for stress-testing central counterparty (CCP) margining systems. In this framework, OTC bilateral transactions are cleared and (often) novated to a CCP which stands as a counterparty to each transaction. Margin is collected from each of the participants in the cleared transaction. The purpose of the CCP is to mitigate systemic risk and, generally, to make risk more transparent. The difference between standard VaR stress-testing and the present framework is that, in the latter, we test simultaneously for extreme events and for extreme configurations among the positions of the clearing participants. This leads to an interesting problem involving high-dimensional random matrices. Various examples of the new method, involving credit-default swaps and equities, are given. This is joint work in progress with Rama Cont and Stanley Jiang Zhang.

Modélisation: Une précision utopique?

The purpose of this presentation is to look at possible pricing implications of the recent or current crises. We first compare the classical pricing approaches, review possible other pricing methods which might look interesting after the recent crisis, and present a simple approach also already mentioned in economic papers based on 3 scenarios (no crisis, stressed market and crisis). In a second step we focus on the stressed case: we use data from the latest credit crisis and its implication on the cost of risk and liquidity to test theoretical analysis of the cost of hedging of FX options through back-testing. We show that bid/ask spreads vary widely, as do margins of long dated option deals, especially for non diversified portfolios. More specifically we show through two examples that the notion of market price of a single deal and its margin when hedged cannot be taken for granted whatever the cost of risk is, and has to be reassessed on a regular basis during the life of the deal.

About the speakers :

Marco Avellaneda is currently Professor of Mathematics and Director of Division of Financial Mathematics at New York University's Courant Institute of Mathematical Sciences. He began his Wall Street career as vice-president in the Morgan Stanley Derivative Products Group. Subsequently, he was portfolio manager in equity volatility Strategies at Gargoyle Strategic Investments LLC, Head of Volatility Arbitrage at Capital Fund Management, where he managed the Nimbus Fund, and, more recently, Portfolio Manager in quantitative equity strategies at the Galleon Group in New York. He is known in academic finance as the inventor of the Uncertain Volatility model and for his work on the Weighted Monte Carlo algorithm and the theory of Dispersion Trading, as well as for several other papers in quantitative finance and derivatives. Marco has extensive experience in the fields of derivatives, quantitative strategies in equities and volatility trading from the point of view of hedge funds and Wall Street firms. He is also in the editorial boards of Communications on Pure and Applied Mathematics, the International Journal for Theoretical and Applied Finance and Quantitative Finance. He has authored the textbook Quantitative Modelling of Derivative Securities: From Theory to Practice, and edited several other books and conference proceedings.

Etienne Koehler currently works at Barclays Capital in the Credit Risk Quant Analytics department. Prior to this role, he has been the global Head of Model Validation team at Commerzbank, of Quantitative Risk Analysis at Natexis BP, and the global Head of quantitative research at Ixis-CIB, Credit Agricole, Credit Lyonnais. Associate professor in the University of La Sorbonne and PhD students' supervisor, Etienne is a former Alumnus of Ecole Normale Supérieure. He holds an "Aggregation of Mathematics", a DEA of Mathematics and an MBA of INSEAD. He has published various articles and is co-author of several books. He is a regular speaker at quantitative finance conferences.

Les Fondateurs



Les Organismes



Le groupe de travail

Le Séminaire Parisien de Validation des Modèles financiers a pour objectif de réunir des chercheurs universitaires et des professionnels du milieu financier et bancaire autour du thème de la validation des modèles financiers. Le séminaire se réunit sur une base trimestrielle autour de deux communications, l'une d'un chercheur académique et l'autre d'un praticien des marchés. Un temps d'échange entre les participants clôture chaque séance.

The Parisian Model Validation Seminar

The purpose of the Parisian Model Validation Seminar is to gather academic researchers and practitioners involved in the field of model risk and model validation. The seminar has a session every three months, organized around an academic talk followed by a practitioner one. A time of discussion/networking follows each session.

Modalités pratiques & Inscription

La participation au séminaire est gratuite et ouverte à tous sur inscription préalable, dans la mesure des places disponibles.

Pour vous inscrire, envoyez votre nom, prénom, affiliation professionnelle et vos coordonnées (e-mail, téléphone) par e-mail à ModelValidation@zeliade.com avant la date limite.

*****Practical matters & Registration*****

The Seminar can be attended free of charge. An email registration will be required to check for available seats.

To registrar, please send your name, surname, professional affiliation and contacts (e-mail, phone) by e-mail to ModelValidation@zeliade.com before the registration deadline.

Comité d'organisation

Jean-Michel Beacco, Rama Cont, Pierre Contencin, Patrick Henaff, Claude Martini.

Contact

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