

CREDIT RISK SUMMIT

New York April 9th, 2010

HIGHLIGHTS

- Credit risk management
- CDS clearing
- Counterparty Risk for derivatives
- Modeling and measuring systemic risk

FINANCE CONCEPTS

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SPEAKERS

Pierre **COLLIN-DUFRESNE**,
Columbia University

Rama **CONT**,
Columbia University

James **HUANG**,
Standard & Poor's

Saiyid **ISLAM**,
Standard & Poor's

Dilip **MADAN**,
R. H. Smith School of Business

Richard **MARTIN**,
Man Group

William **MOROKOFF**,
Standard & Poor's

ABOUT THE SPEAKERS

Rama CONT, Columbia University, is Associate Professor and Director of the Center for Financial Engineering at Columbia University, New York and a founding partner of Finance Concepts. His research interests include computational methods in option pricing, models based on implied volatility and issues related to model risk, model selection and calibration. He is the co-author of "Financial modelling with jump processes" (CRC Press 2003), "Credit Derivatives and Structured Credit" (Wiley 2005).

Pierre COLLIN-DUFRESNE, prior to joining Columbia University in July 2008, worked three years as a senior portfolio manager responsible for fixed income and credit strategies in the Quantitative Strategies Group of Goldman Sachs Asset Management. Pierre joined GSAM in July 2005 from the Haas School of Business of U.C. Berkeley where he had been an Associate Professor of Finance since 2004. After obtaining his Ph.D. in 1998 from the HEC School of Management, Paris, France, he started as an Assistant Professor of Finance at the Graduate School of Industrial Administration of Carnegie Mellon University, where he became Associate Professor in 2003. Pierre's teaching and research interests include Asset and Contingent Claim Pricing, Fixed Income Securities, Default Risk, Emerging Markets, International Finance, and Real Estate Economics. His research has been published in refereed journals such as *Econometrica*, *Journal of Finance*, and *Journal of Derivatives*.

James HUANG is a Director of Standard & Poor's Quantitative Analytics Research Group. He is responsible for developing and implementing models relating to credit risk. His current emphasis is on modeling probability of defaults, default intensity and portfolio loss. Prior to joining Standard & Poor's, James worked in the Asset Management group of JP Morgan, where he was an Associate in the Quantitative System group. James holds a PhD in Applied Mathematics and a M.S. in Computer Science from Brown University.

Saiyid ISLAM is currently a director in the Quantitative Analytics and Research Group at Standard & Poor's. He has worked extensively on credit portfolio risk models focusing on developing credit risk assessment methodologies for structured finance assets in particular. Prior to joining S&P, he worked as an analyst at Moody's Investors Service and in a CDO research role at Moody's KMV. Saiyid holds a PhD in finance from Virginia Tech, an MBA from Essec, and a B.S in Mechanical Engineering from the Indian institute of Technology - Delhi. He has also published refereed articles in the *Journal of Banking and Finance*, *Journal of Derivatives* and the *Journal of Alternative Investments*.

Dilip MADAN, Robert H. Smith School of Business, specializes in Mathematical Finance. Currently he serves as a consultant to Morgan Stanley, and Caspian Capital LLC. He has also consulted with Citigroup, Bloomberg, the FDIC and Wachovia Securities. He is a founding member and Past President of the Bachelier Finance Society. He received the 2006 von Humboldt award in applied mathematics, and was the 2007 Risk Magazine Quant of the Year. He is the Managing Editor of *Mathematical Finance*, Co-editor of the *Review of Derivatives Research*, and Associate Editor for the *Journal of Credit Risk*, and *Quantitative Finance*. Recent major contributions have appeared in *Mathematical Finance*, *Finance and Stochastics*, *Quantitative Finance*, *The Journal of Computational Finance*, among other journals.

Richard MARTIN, MAN Group, is Head of Quantitative Credit Strategies at Man Group where he focuses on credit trading and on the development of credit derivative and portfolio models. Prior to joining Man Group in October 2008 he worked on credit derivatives and related matters at BNP Paribas and Credit Suisse, developing credit trading, credit-equity, credit portfolio and CDO models. His research interests are Mathematical modelling of financial derivatives with particular regard to credit derivatives and portfolios.

William MOROKOFF heads Standard & Poor's Quantitative Analytics and Research Group. He is responsible for leading the development and application of quantitative methodologies for all of Standard & Poor's Ratings Services. His team is responsible for research support of the quantitative models and criteria used in Standard & Poor's credit assessment products and services. Bill has worked extensively in credit and market risk modeling, with a research focus on numerical analysis for portfolio risk management problems. Prior to joining S&P, Bill was a senior member of the credit research group at Moody's KMV, leading the new product research group and ultimately heading the research team. Before that, he worked in quantitative market risk management as a vice president at Goldman Sachs. Bill holds a Ph.D. in mathematics from the Courant Institute at New York University, where he specialized in Monte Carlo methods and numerical analysis. He also received a B.S. in chemical engineering from Purdue University.

ABSTRACTS

Pierre COLLIN-DUFRESNE, Columbia University

On the Relative Pricing of long Maturity S&P 500 Index Options and CDX Tranches

We investigate a structural model of market and firm-level dynamics in order to jointly price long-dated S&P 500 options and tranche spreads on the five-year CDX index. We demonstrate the importance of calibrating the model to match the entire term structure of CDX index spreads because it contains pertinent information regarding the timing of expected defaults and the specification of idiosyncratic dynamics. Our model matches the time series of tranche spreads well, both before and during the financial crisis, thus offering a resolution to the puzzle reported by Coval, Jurek and Stafford (2009a).

Rama CONT, Columbia University

Are CDO models any good for hedging? An empirical study

Joint work with: Yu Hang KAN, Columbia University

We compare the performance of various hedging strategies for index CDO tranches across a variety of models and hedging methods before and during the recent credit crisis. Our analysis shows poor performance of most model-based delta-and gamma-hedging strategies and strong evidence for unhedgeable risk in CDO tranches. We also show that, unlike what is commonly assumed, dynamic models do not necessarily perform better than static models, nor do high-dimensional default correlation models perform better than simpler top-down models. In fact hedges based on top-down models and regression-based betas outperform significantly sensitivity-based hedging strategies based on single name CDS during the Lehman Brothers default event.

James HUANG, Standard & Poor's

An Efficient Numerical Scheme for Credit Portfolio Models

We describe a recently developed, efficient numerical scheme that yields a significant improvement in the performance of certain credit portfolio models. We benchmark this scheme against an alternative approach and report results.

Saiyid ISLAM and William MOROKOFF, Standard & Poor's

Measuring Performance of Credit Risk Assessments

Popular measures for evaluating the performance of various credit risk measurement models have traditionally relied on computation of Lorenz curve-based scores such as Accuracy Ratios or Gini Coefficients. These measures are also commonly used to assess default risk predictions across very different sectors, regions or time periods. Such measures are however sensitive to sample size and to realized default rates that may vary substantially across economic cycles or sectors due to correlation effects. We analyze the performance of these performance measures themselves through a controlled study of real and modeled data and present results related to the impact of small data sets, datasets with few or zero defaults, and datasets where the obligations are highly correlated to gauge the effectiveness of these traditional credit risk performance measures. We also highlight instances where the performance of traditional measures may be difficult to interpret.

Dilip MADAN, Robert H. Smith School of Business

Accounting to Acceptability: With applications to the pricing of ones own credit risk

The theory of pricing to acceptability developed for incomplete markets by Cherny and Madan (2009b) is applied to marking ones own default risk. It is observed in agreement with Heckman (2004), that assets and liabilities are not to be priced under fair value accounting principles at the same magnitude. Liabilities are marked at ask prices that are above the asset mark at bid prices. Applying cones of acceptability defined by the concave distortion minmaxvar at the stress level of 0.75 it is shown that counterintuitive profitability resulting from credit deterioration is eliminated. Following Heckman we suggest that the difference between the liability mark and the asset mark be taken as an upfront expense deposited in a special account called the ODOR account for Own Default Operating Reserve. Procedures for pricing coupon bonds separately as assets and liabilities are described. They employ the default time distribution as calibrated from the CDS market.

Richard MARTIN, Man Investments

The Merton model revisited: Use of local Levy processes for understanding the credit-equity relationship

The Merton, or structural, model has been extended in different ways in recent years, commonly through the use of a barrier option to represent the optionality present in the firm's debt or CDS. It has been known for some time that a simple diffusion model for the firm's assets is incapable of fitting the CDS term structure seen in the market, and that some kind of jump process is required. What is less well known is that a local volatility needs to be introduced to capture the credit-equity relationship properly. I will explain why this is and how to do the modelling and computation.

VENUE

The conference will be held at:
Standard & Poor's,
55 Water Street, 37th Floor
New York, NY 10041

INFORMATION

Please send back this registration form along with payment to:
Finance Concepts, 590 Madison Avenue, 21st Floor
New York NY 10022

Tel: (212) 521 41 66

Email: creditrisk@finance-concepts.com

REGISTRATION

Registration includes: lectures, lunch, coffee breaks and documents.

To register, please fill out the registration form below with your payment or proof of bank transfer.

Registration forms and payment must be submitted no later than April 2nd, 2010.

Registration fee:

USD \$1199 (regular), USD \$899 (special group rate), USD \$599 (full-time academic rate)

REGISTRATION FORM

PARTICIPANT

First Name : _____ Last Name : _____

Job title : _____ Company : _____

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