Article from:

Risk Management

March 2010 – Issue 18

Fourth Year a Home Run for ERM Symposium Scientific Papers Track

By Steven C. Siegel

SINCE 2006, a call for ERM related research papers has been issued in conjunction with the ERM Symposium. The goal of the call for papers has been to provide a forum for the very latest in ERM thinking and move forward principles-based research. The 2009 Call for Papers, the fourth in the series, once again provided an opportunity for thought leaders and innovators to share their ideas and push the boundaries of ERM. I am pleased to report that the 2009 ERM Symposium Scientific Paper Track represents another success in this series in terms of both quality and scope of papers.

Fred Tavan, chair of the ERM Symposium Call for Papers

With Max Rudolph, who had the original idea for the Call for Papers, handing over the chair role to Fred Tavan, over 40 abstracts were reviewed. The breadth of topics submitted reconfirmed the cross-industry interest in this area. The Papers Review Committee included returning members Maria Coronado, Krzysztof Jajuga, Barbara Scott, Dan Oprescu, Nawal Roy, Matthieu Royer, Greg Slone, Richard Targett, Fred Tavan, Al Weller and Robert Wolf as well as newcomers David Cummings, Riaan DeJongh, Wayne Fisher, and Valentina Isakina. Choosing from among the abstracts for nine presentation slots at the symposium required a great deal of review and careful consideration. Given the quality and number of abstracts, as in previous years, the committee wished there were more speaking slots available.

The final task of the committee was to select the prize winning papers. The three prizes awarded at the symposium are: the Actuarial Foundation ERM Research Excellence Award for Best Overall Paper; the PRMIA Institute Award for New Frontiers in Risk Management and the Joint Risk Management Section Award for Practical Risk Management Applications.

The award winners along with the paper abstracts are shown below. Awards were presented at the ERM Symposium Opening session held on April 30, 2009.

2009 ACTUARIAL FOUNDATION ERM RESEARCH EXCELLENCE AWARD FOR BEST OVERALL PAPER:

"A Risk Management Tool for Long Liabilities: The Static Control Model" by John Manistre

John Manistre (right) accepts the fourth annual Actuarial Foundation award from Cecil Bykerk.

ABSTRACT

This paper looks at the problem of valuing and managing the Asset/Liability Management (A/LM) risks associated with insurance liabilities that are too long to be matched by available investments. Two very different approaches to the problem are explored. The first approach called Yield Curve Extension starts with a number of simple ideas for extrapolating a yield curve and analyzes them from a risk management perspective. The paper concludes that these methods lead to unnecessarily extreme A/LM strategies. The paper then describes a second approach called the Static Control Model which allows one to use a total return vehicle as part of the A/LM strategy. The model decomposes a long liability into fixed income and total return components in a market consistent way. The fixed income component is a static hedge for the

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liability in the sense that it matches the first order sensitivities of the model liability as observable market information changes. The paper concludes by arguing that the Static Control Model leads to more useful A/LM strategies for long liabilities.

2009 PRMIA INSTITUTE AWARD FOR NEW FRONTIERS IN RISK MANAGEMENT:

"Risk Factor Contributions in Portfolio Credit Risk Models" by Dan Rosen and David Saunders

Dan Rosen (left) and David Saunders (right) accept PRMIA Institute award from Steve Lindo (center)

ABSTRACT

Determining contributions to overall portfolio risk is an important topic in financial risk management. At the level of positions (instruments and subportfolios), this problem has been well studied, and a significant theory has been built, in particular around the calculation of marginal contributions. We consider the problem of determining the contributions to portfolio risk of risk factors, rather than positions. This problem cannot be addressed through an immediate extension of the techniques employed for position contributions, since, in general, the portfolio loss is not a linear function of the risk factors. We employ the Hoeffding decomposition of the loss random variable into a sum of terms depending on the factors. This decomposition restores linearity, at the cost of including terms that arise from the joint effect of more than one factor. The resulting cross-factor terms provide useful information to risk managers, since the terms in the Hoeffding decomposition can be viewed as best quadratic hedges of the portfolio loss involving instruments of increasing complexity. We illustrate the technique on multi-factor models of portfolio credit risk, where systematic factors may represent different industries, geographical sectors, etc.

2009 JOINT RISK MANAGEMENT SECTION AWARD FOR PRACTICAL RISK MANAGEMENT APPLICATIONS:

"Risk and Light" by David Ingram

David Ingram (right) accepts Joint Risk Management Section award from Mike Hale

ABSTRACT

"In the Kingdom of the Blind, the One Eyed Man is King"
— Erasmus, Adagia

It is widely reported that markets are made because different market participants have different views of the opportunities in the market. For every transaction, there may be an agreement on price, but an inevitable complete disagreement on direction of the next move in price. This article examines one source of those differences of opinion in the market: the view of risk of the various market participants. Based on some popular theoretical approaches to risk, a possible range of types of approach to risk is posited that is tied to some popular theoretical approaches to risk. The impact of these views of risk on the types of transactions chosen is extrapolated from groupings of risk views along that range. Finally, the interaction in the market of those varying points of view is illustrated with a simplified example; extension to a fully realistic real world situation is discussed. Simply stated, the article shows how market participants' view of risk impacts not just their own choices, but also how they impact on everyone else's choices as well.

We wish to thank all the organizations and committee members for their support and for making The ERM Symposium a success. ✦