
The Newsletter of the EURO Working Group on Financial Modelling

NEWSFLOW

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NEWSFLOW

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Subscription is free for members of the EURO Working Group on Financial Modelling. See last page for information on membership.

Invitation to readers

Readers are invited to actively contribute to the newsletter. Examples are book reviews, announcements, opinions, lists of published papers, etc.

You can also find information about the Euro Working Group on the internet site
<http://www2.eur.nl/topics/finance//ewgfm/ewgfm.htm>

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Editorial

Financial Mathematics and Finance

Prior to the 1950s, a typical "finance" course at a Business school would have more to do with accounting and perhaps individual share analysis along the lines of Graham (1938). However, Harry Markowitz and operations research started financial research on a new direction in 1952. Mathematics meant Money! The only somewhat ironic twist to the tail was that Paul Samuelson in the early 1960s found that mathematics had played a much earlier and more important role in Finance with the now recognised seminal work of Bachelier in 1900. Only recently was it known that the insights that Einstein had in 1905 into Brownian motion had been examined five years earlier by Bachelier. Unfortunately, the work of Bachelier was too early and not recognised at the time for its importance. It is hard to conceive that such important work today would not be implemented within days on the trading room of an international investment bank.

Merton, Black & Scholes built on this work to develop a coherent option pricing theory in 1973, after all three authors had been pointed in the right direction by Paul Samuelson. While different mathematical techniques would subsequently be used to rederive the Merton, Black & Scholes formula, it was clear that from that point forward a new academic field would marry pure mathematics and finance.

Over the past 30 years, Log-normal and Binomial distributions have replaced share analysis as the premier paradigm. Expected values of assets became preference free as Risk-neutral measures replaced subjective measures of value. Fields such as physics, pure mathematics and "rocket science" lent such tools as stochastic calculus, Itô's lemma, Girsanov's theorem and the Radon-Nikodym derivative. No longer could finance academics rely on solely economic tools to explain the prices of assets, one had to solve partial differential equations, stochastic differential equations and have a working knowledge of martingales.

Apart from the obvious impact on derivatives pricing, advances have been made in insurance mathematics and risk measurement & management. It is impossible to think of interest rate risk management solely under the Macalay (1938) duration approach, but only under models of the short rate, or models by Hull-White, Brace-Gatarek-Musiela or under the Heath-Jarrow-Morton framework.

Even given the importance of mathematical methods in the evolution of finance theory in the past 30 years, there is a question of how much more impact can the union of such diverse fields yield to new understanding. With this thought in mind, the XXXVII Meeting of the Euro Working Group on Financial Modelling, which will be held at the Frankfurt Business School of Finance and Management (Hochschule für Bankwirtschaft), next October 27-29, will bring together researchers examining these problems and finding innovative solutions. Invited speakers include three of the most pre-eminent researchers in the field of financial mathematics. Hans Föllmer of the Humboldt University (Berlin), Günther Franke of the University of Constance and Walter Schachermayer of the Technical University, Vienna will discuss the current cutting edge in Financial Mathematics and the challenges for researchers in the future.

My personal wish is to hold a conference where we can take stock of how far we have come in financial research and where we still have to go. Only by having a diverse group of researchers with different perspectives can we find solutions to many of the major problems that have so far eluded us. In addition, we have the opportunity to show off Frankfurt and the German finance community in the best light. We have a number of existing events planned, including traditional Hessen essen, a trip through Frankfurt on an Appel Wine tram and visits to Sachsenhausen. Did you realise that Frankfurt Opera has been voted the best in the world, as well as a number of excellent art museums and a world class zoo? Finally, we are proud to host the European academic community at the newest private University in Frankfurt, the Business School of Finance and Management, where such well known finance academics such as Wolfgang Schmidt and Uwe Wystup have left investment banking to return to research. It is an exciting time for academic finance in Germany, and I look forward meeting all of you in Frankfurt, discussing our research and having a wonderful time.

Robert G. Tompkins

Call for papers EJOR

Thus far, the European Journal of Operational Research has published a number of special issues on Financial Modelling:

Issue 74/2, edited by T. Martikainen, I. Virtanen and P. Yli-Olli;

Issue 91/2, edited by E. Castagnoli and J. Spronk. In 1998, the European Journal of Operational Research together with the EURO Working Group on Financial Modelling decided to start a more regular series of feature issues.

A feature issue on financial modelling is an issue of EJOR partly or wholly devoted to financial modelling. The intended frequency of these feature issues on financial modelling is once or twice per year.

Papers on financial modelling are solicited that help to solve financial-economic decision problems in practice. Papers may relate to new insights, both theoretical and empirical, into the environment in which decision makers operate new tools available to the decision makers and to the integration of these tools within frameworks for financial-economic decision-making. Papers that stimulate and strengthen the interaction between financial economic theory and the practice of financial decision-making will be especially welcome.

The first feature issue was published as Issue Volume 114, Number 2, April 16, 1999, and edited by J. Spronk. A stream of issues followed this; some of which have been published and the others will follow soon.

Authors who want to submit to the upcoming feature issue are kindly invited to submit four copies of their paper to the Guest Editor Financial Modelling:

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With respect to format and other requirements of submitted work, the authors are kindly referred to the Instructions to Authors, which can be found in every issue of EJOR. For the feature papers there is a separate board of editors, consisting of

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Call for funds

Dear friend,

As you know, since 2001, EURO decided to invest in the promotion of Operational Research in Africa, trying to organize, support and improve the presence of our discipline in this continent so near to us and so far at the same time. When we began, only the Operation Research Society of South Africa existed, a long time established and efficiently run society. Today five more societies have been established in Algeria, in East Africa (federating Kenya, Tanzania and Uganda), in Morocco, in Tunisia and in West and Central Africa (federating Benin, Burkina Faso, Cameroun, Congo(both), Mali, Niger, Nigeria, Senegal, Tchad, Togo) and a number of conferences and workshops took place, or are scheduled, with an increasing participation and impact to the local societies. Our small investment gave great results and we are proud of our colleagues in Africa who have been able to do so much with so little. You can see more about this effort at

<http://www.euro-online.org/africanOR>.

However, today we **NEED** you. The EURO AFRICA project opened the way to an institutional presence of our discipline over the continent, but the real problem for our colleagues is the dramatic necessity of resources for studying, training and doing research. Our discipline is a key subject for the development of the whole continent as it has been in other places in the world. The establishment of the NEPAD (see <http://www.nepad.org>) explicitly calls for contributing towards a new era for the African continent and Operational Research can play a leading role in this direction as explicitly mentioned in their documents.

However, there is a striking difference between the expectations and the everyday reality. This is why our colleagues in Africa and EURO **need you**.

What you can do? What will you do?

EURO, in collaboration with IFORS, established the AfricanOR fund (see <http://www.euro-online.org/AfricanOR>). We collect donations of money, of books, of journals' collections, of training support materials etc.. We have a bank account (IBAN: CH78 0026 0260 GS10 5363 3) and an address: africa@euro-online.org.

Any contribution is welcome. A 500€ out of your very recent research program is a marginal expense, but it can make the difference in Africa where a whole year tuition fee, including accommodation, for a Master student in OR costs 2000€.

You can see more on the African OR initiative in our web site and more specifically on the AfricanOR fund. If you have any questions please do not hesitate to contact me at the address africa@euro-online.org.

Thanking you for the attention, yours sincerely,

Alexis Tsoukiàs

2005 ICSC Congress

Dear colleague,

2005 ICSC Congress on Computational Intelligence Methods and Applications (CIMA'2005) will be held in Istanbul, Turkey during December 12-14, 2005. The scientific program of CIMA'2005 will include four symposia, one of which is the

ICSC Symposium on **ADVANCED COMPUTING IN FINANCIAL MARKETS (ACFM'2005)**

As symposium chair, I would like to take this opportunity to invite you to become a member of the Program Committee of ACFM'2005. You have been highly recommended as an expert in your research area and I hope you will find the time to serve in this capacity.

Your responsibilities as a member of the Program Committee of ACFM'2005 would be:

- To promote interest and participation in ACFM'2005 by contacting colleagues in your field to attract high quality contributions.
- To serve as a reviewer for submitted papers. We expect each IPC member will receive 5-7 manuscripts to review.

Please let me know at your earliest convenience if you accept this invitation by replying by e-mail.

For further information about CIMA'2005 and ACFM'2005, please visit

<http://www.cima2005.org>
http://www.cima2005.org/def_acfm.asp

Looking forward to a productive cooperation,

Uzay Kaymak.

Chairperson First International ICSC Symposium on **ADVANCED COMPUTING IN FINANCIAL MARKETS (ACFM'2005)**

For more information about organising a meeting, please contact Jaap Spronk (spronk@few.eur.nl) or H el ene Molenaar (molenaar@few.eur.nl)

Announcement

Interesting possibilities to publish your papers electronically, without losing your rights to submit these papers to journals:

www.ssrn.com

and

www.finance-research.net

Frankfurt 27 - 29 October 2005

Program

The Program of this meeting and other information can be found on the Internet site:

www.hfb.de/Navigator/Show/simple/EWGFM_Forum

Information

This meeting is organized by:

Robert Tompkins

tompkins@hfb.de

For further information please contact the conference secretariat at:

Email: ewgfm@hfb.de

Next meeting(s)

2006

One of the future meetings will be held in London (UK).

38th EWG Meeting

The 38th meeting will be held in Jakarta (Indonesia).

First day: May 1, 2006 in Jakarta

Day 2-5: Yogyakarta

May 6: Closing in Bali

Contactperson:

Jaap Spronk (spronk@few.eur.nl)

and/or

H el ene Molenaar (molenaar@few.eur.nl)

We are working on a special hotel package (2nd person free!)

We are also working on a special deal with Singapore Airlines. Departure on April 28 from Europe (Amsterdam, Frankfurt and Rome) to Jakarta (arrival April 29).

Return from Bali (Den Pasar) on May 7 (arrival on May 8). Later return dates allowed as is stopover in Singapore.

Details available around September 15, 2005.

As soon as the website is available, it will be announced on:

<http://www.eur.nl/topics/finance/ewgfm/ewgfm.htm>

Please check this site on a regular basis.

Working Papers

ERIM

You can find publications of the Erasmus Research Institute of Management (ERIM) on the following website:

<http://www.fbk.eur.nl/ERIM>

ECFR

From the *Erasmus Center for Financial Research* (ECFR), Erasmus University Rotterdam, Room H11-01, P.O. Box 1738, 3000 DR Rotterdam, The Netherlands, some papers can be ordered:

For more information:

<http://www.ecfr.nl>

TINBERGEN INSTITUTE

For more information:

<http://www.tinbergen.nl/>

Please add other relevant sites if you want!

EURO Working Group on Financial Modelling

The EURO Working Group on Financial Modelling was founded in September 1986 in Lisbon. The primary field of interest for the Working Group can be described as “financial models that help to solve problems faced by financial decision makers in the firm, intermediaries and the investment community. From this the following objectives of the Working Group are distinguished:

- providing an international forum for exchange of information and experience on financial modelling;
- encouraging research in financial modelling (new techniques, methodologies, empirical studies, software, etc.);
- stimulating and strengthening the interaction between financial economic theory and the practice of financial decision making;
- cooperating and exchanging information with other universities and financial institutions throughout Europe.

It can be stated safely that the Working Group has become an established one. To give an idea: over 400 members, 35 international meetings and an own newsletter (*NEWSFLOW*) are three examples of the success until now.

Meetings

The meetings of the Working Group are organized twice a year, in April/May and in October/November. Earlier meetings were held in Belgium, Curaçao, Cyprus, Finland, France, Hungary, Italy, Lithuania, the Netherlands, United Kingdom, Germany, Greece, Croatia, Poland and Spain. There are now members in 34 countries spread over 4 continents. The meetings are attended by 80-100 members on average, most of them scientists but also representatives from the financial institutions, and are usually organized on Thursday, Friday and Saturday morning. The organizers are expected to schedule three types of sessions: a round table session with invited speaker(s), regular sessions with the presentation of refereed papers and balloon sessions in which unrefereed papers, new topics and ‘loose’ ideas can be discussed.

Newsletter

NEWSFLOW, the newsletter of the Working Group is published twice a year, about one month before each meeting. Newsflow is also published on the Internet site

<http://www.eur.nl/topics/finance/ewgfm/ewgfm.htm>

It contains general information about the Working Group and the next meeting(s), letters from readers, announcements of financial seminars, calls for papers, a list of working papers, etc. For information about *NEWSFLOW* or for publication of your contributions please contact the editor: H  l  ne Molenaar, address below.

Membership

For information about membership of the EURO Working Group on Financial Modelling, you may write to:

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