
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 back cover 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.

NEWSFLOW is published twice a year (March and October) by the EURO Working Group on Financial Modelling under a grant from the Erasmus University Rotterdam. Circulation: over 400 to 33 countries.

Editorial

Financial Modelling and Internet

“The medium is the message” This phrase was coined by Marshall McLuhan about 40 years ago astonishingly appropriately describing the capabilities of virtual reality. He also proposed that the communication technology will shrink the entire world to the dimension of an ancient village. He was indeed right again.

Approx. 10 years ago the internet started by introducing hypertext markup language, HTML for short, enabling to connect different computers for transferring well structured messages.

The internet digressed from an experts' communication tool to an information tool for (nearly) everybody. The search engines called browsers were invented to enabling the information search about specific topics. Nowadays, so-called portals followed the browsers opening the doors to virtual shopping malls, providing not only information about the goods the visitor is able to buy, but also offering the facilities that the visitor can order the goods at once. Extensible markup language XML becomes the efficient standard for data interchange and document archive following the needs of a global internet.

There is another strain of innovative technology having a tremendous impact on our everyday live: The wireless application protocol WAP will enhance the computing power of handheld computers emerging from mobile phones. The technological facilities will again revolutionise our way of life and our ways of doing business as the PC did sometimes ago and the internet did few years ago. Still very small, the business to business e-commerce is thought to grow very rapidly during the next years creating electronic market places called portals.

Time will come when the queues have been removed and www is no longer the abbreviation for world wide wait because wireless technology has become so powerful that access to the internet is possible any time, everywhere. The differentiation between voice and data communications will shrink. Voice technology is coping with XML developing a standard that will probably called voice XML.

Let me discuss the implications for financial modelling. Of course, this tremendous progress in information and communication technology requires a change in financial modelling, too. However, when any data file can be communicated from any computer to another and connectivity is no problem any longer, the user deserves efficient tools in selecting the data he really needs out of the huge bulk of data he /she is able to obtain.

That is not a technical matter of data processing but a matter of decision making. This new era of information overflow requires models for describing the needs and preferences by means of an efficient theoretical tool and methods to match the characteristics of the goods offered by the sellers and the goods asked for by the buyers.

This will especially relevant for virtual financial markets portals. They will no longer be restricted to the traditionally provided security's issuing data. An integral financial planning will require the evaluation of any security in the context of any individual portfolio and if it fits into the risk profile of an investment policy characterised by multiple criteria.

We will see a new era of multicriteria decision making models urgently needed to describe the preferences of buyer and sellers of financial assets when all the data needed and a lot more are available. A further challenge will be to provide models for price discovery. The hitherto available auction models should be subject to revision.

Therefore the EWGFM will face a lot of challenges in the future too.

Otto Loistl

Call for papers EJOR

Thusfar, 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. The second feature issue was edited by N. v.d. Wijst and J. Spronk and will be published 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, that can be found in every issue of EJOR. For the feature papers there is a separate board of editors, consisting of

Wolfgang Bühler, University of Mannheim, Germany

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Forecasting Financial Markets

(Seventh International Conference)
31 May – 2 June 2000

Conference Venue:

The Harrington Centre
Harrington Hall
5-25 Harrington Gardens
London SW7 4JW
United Kingdom

Sessions:

Fund management and trading rules
Advances in asset management and portfolio
optimisation
Modelling volatility and correlation
Modelling with high frequency data
Risk analysis and credit trading
Derivatives pricing models

Special Session:

Weather derivatives

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27th EWG Meeting

The 27th meeting will be held in New York,
U.S.A., on November 16 and 17, 2000.

This meeting will be organized by:

Anoop Rai

For further information please contact him at:

Hofstra University
Department of Finance
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Tel: +1-516-4635356
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Email: finazr@hofstra.edu

Trondheim 4-6 May 2000

Program

The Final Program of this meeting can be found on
the internetsite:

www.iot.ntnu.no/euro26/

Information

This meeting is organized by:

Dr. Nico van der Wijst

For further information please contact him at:

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Email: Wijst@iot.ntnu.no

Next meeting(s)

The Spring meeting in 2001 will be organised in Vilnius (Lithuania) by Leonidas Sakalauskas.

The Autumn meeting 2001 will be organised in Capri, by Rita D'Ecclesia.

The Spring meeting in 2002 will be organised in Bath (UK) by Christopher Adcock.

Offers to organise the Autumn meeting in 2002 are welcome.

New book(s)

Finding the Frontier

Methodological Advances in Data Envelopment Analysis (thesis)

Thierry Post

Abstract:

In the relatively short span of two decades, Data Envelopment Analysis (DEA) has established itself as an important analytical tool for productivity and efficiency analysis. The original DEA models made a number of assumptions that can be restrictive in particular research environments, including those with high preference ambiguity, non-convex production technologies, and stochastic disturbances caused by outliers and measurement error. However, a number of methodological advances have made the methodology flexible enough to generate valuable information in wide variety of research environments. This study surveys these methodological advances. In addition, this study develops some new solutions for unresolved problems, using key insights from the fields of Multi-Criteria Decision-Making, the mathematics of Generalised Convexity and the theory of Stochastic Dominance. Apart from theoretical discussion, this study contains original results from practical applications (covering university departments, commercial banks, and bank branches) and Monte-Carlo simulations.

Working Papers

From the *Rotterdam Institute for Business Economic Studies* (RIBES), Erasmus University Rotterdam, Room H15-28, P.O. Box 1738, 3000 DR Rotterdam, The Netherlands, the following papers can be ordered:

- | | | | |
|--------|---|----------|--|
| 9401/F | Hallerbach, W.G., Duration and bond return approximation, The quaso-convexity effect, January 1994. | 9615/O/F | Bruining, J., A.C.C. Herst and D. Citron, Loan convenience relationship banking and MBO's in default: a comparative study of the UK and Holland. |
| 9405/F | Smit, J.T.J., The flexibility value of strategic investments under competition, March 1994. | 9616/F | Soppe, A.B.M., De rol van rente, geld en vermogen in het wereld economisch proces: een ethische beschouwing. |
| 9414/F | Spronk, Jaap and Erik M. Vermeulen, Interfirm performance evaluation under uncertainty: A multi-dimensional framework, September 1994. | 9707/F | Post, Th. and J. Spronk, Bank performance bench-marking in stochastic environments using log-linear mean-variance data envelopment analysis. |
| 9422/F | Brouwer, Frank, Paul C. van Aalst and Nico L. van der Sar, Investment risk and risk management revisited, November 1994. | 9711/F | Groenendijk, A.A. and J. Spronk, Portfolio performance through the eyes of monkeys. |
| 9426/F | Hallerbach, Winfried G., A simple approximation to the normal distribution function with an application to the Black & Scholes option pricing model, December 1994. | 9713/F | Spronk, J. and E.M. Vermeulen, Interfirm performance evaluation under uncertainty. |
| 9502/F | Higson, Chris and Jamie Elliott, Post-takeovers returns - The UK evidence, March 1995. | 9719/F | Meulen, J. van der and J. van der Voort, Er valt wat te zeggen voor passief beleggen. |
| 9503/F | Groenendijk, A.A. and E.E. Hagen, Solving the capital structure puzzle: The government as a stakeholder in the firm, March 1995. | 9721 | Post, G.T., Transconcave Data Envelopment Analysis |
| 9504/F | Vermeulen, Erik M., Jaap Spronk and Nico van der Wijst, Analysing risk and performance using the multi-factor concept, april 1995. | 9822 | Kouwenberg, R., Dynamic Portfolio Insurance: A Stochastic Programming Approach |
| 9505/F | Vermeulen, Erik M., Jaap Spronk and Nico van der Wijst, A Framework for conditional failure prediction, April 1995. | 9824 | Soppe, A., Capital, Interest and Ethics: Some Empirical Explorations of an Ethical Approach of economic growth |
| 9508/F | Brännback, M. and J. Spronk, A multidimensional framework for strategic decisions, June 1995 | 9847 | Post, G.T., Estimating non-convex production sets using transconcave DEA |
| 9509/F | Hallerbach, W.G. and J.Spronk, Portfolio management for the non-average investor, June 1995. | 9905 | Post, G.T., Nonparametric efficiency estimation in stochastic environments |
| 9520/F | Soppe A., De duurzaamheid van het internationale geld en bankstelsel: Een ethische beschouwing, September 1995. | 9911 | Kuosmanen, T. and G.T. Post, Robust Efficiency Measurement. Dealing with outliers in Data Envelopment Analysis |
| 9526/F | Groenendijk, A.A., Investeren, kasstroomprojectie en ondernemingswaarde, December 1995. | 9913 | Hallerbach, W.G. and J. Spronk, A Multicriteria Framework for Risk Analysis |
| 9606/F | Greco S, The splitting property of fuzzy financial laws, September 1996. | 9922 | Spronk, J. and W.G. Hallerbach, Het "redelijk rendement" voor ondernemingsactiviteiten vanuit financieel-economisch perspectief |
| 9612/F | Post, T. and J. Spronk, Interactive data envelopment analysis, September 1996. | 9933 | Post, G.T. and J. Spronk, Evaluating productive performance under uncertainty |
| | | 9934 | Kuosmanen, T. and G.T. Post, Measuring economic efficiency with incomplete price information. |

Working Papers

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| 9801 | Roy Kouwenberg, A stochastic programming model for asset liability management for pension funds. | 9903 | Philip Hans Franses and Patrick J.F. Groenen, Visualizing time-varying correlations across stock markets. |
| 9802 | Dick van Dijk, Philip Hans Franses and André Lucas, Short patches of outliers, ARCH and volatility modeling. | 9904 | Pauline Bod, David Blitz, Philip Hans Franses and Roy Kluitman, An unbiased variance estimator for overlapping returns. |
| 9803 | Philip Hans Franses and Richard Paap, Modeling day-of-the-week seasonality in the S&P 500 index. | 9905 | Martin Martens and Ser-Huang Poon, Correlation dynamics between international stock markets using synchronous data. |
| 9804 | Jenke ter Horst, Theo Nijman and Frans de Roon, Style analysis and performance evaluation of Dutch mutual funds. | 9906 | Jaap Hoek, Patrick Houweling and Frank Kleibergen, The joint estimation of term structures and credit spreads. |
| 9805 | Jenke ter Horst, Theo Nijman and Frans de Roon, Performance analysis of international mutual funds incorporating market frictions. | 9907 | Winfried Hallerbach and Bert Menkveld, Value at risk as a diagnostic tool for corporates: the airline industry. |
| 9806 | Monique Donders, Roy Kouwenberg and Ton Vorst, Options and earnings announcements: an empirical study of volatility, trading volume, open interest and liquidity. | 9908 | Ser-Huang Poon and Peter F. Pope, Tests of option market efficiency: a high frequency data and common volatility component approach. |
| 9807 | Bert Menkveld and Ton Vorst, A pricing model for American options with stochastic interest rates. | 9909 | Jacek Gondzio, Roy Kouwenberg and Ton Vorst, Hedging options under transaction costs and stochastic volatility. |
| 9808 | Jon Danielsson, Philip Hartmann and Casper de Vries, The cost of conservatism: extreme returns, value-at-risk, and the Basle multiplication factor. | 9910 | Jon Danielsson, Bjorn N. Jorgensen and Casper G. de Vries, VoF or VAR? Firm Value and Risk Management. |
| 9809 | Antoon Pelsser and Ton Vorst, Pricing of flexible and limit caps. | | |
| 9810 | Phil Hunt, Joanne Kennedy and Antoon Pelsser, Markov-functional interest rate models. | | |
| 9811 | Antoon Pelsser, Pricing double barrier options using analytical inversion of Laplace transforms. | | |
| 9812 | Phil Hunt and Antoon Pelsser, Arbitrage-free pricing of quan-to-swaptions | | |
| 9813 | Roy Kouwenberg, Dynamic portfolio insurance: a stochastic programming approach. | | |
| 9901 | Dick van Dijk, Philip Hans Franses, André Lucas and Nick Taylor, SETS, arbitrage activity, and stock price dynamics. | | |
| 9902 | Jan Annaert and Marc J.K. de Ceuster, The big mac: more than a junk asset allocator? | | |

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 300 members, 25 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, 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. It contains general information about the Working Group and the next meeting(s), abstracts of the papers of the next meeting, 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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