
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 inside 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.

You can find the latest edition of *NEWSFLOW* on the internet page: <http://www.eur.nl/few/finbel/htmls/finFLOW.html>

Editorial

New Techniques for the Assessment of Business Failure Risk

In the field of financial risk management, the assessment of business failure risk constitutes one of the most interesting and significant problems (Zopounidis, 1998). Especially in the field of corporate finance, any individual or organization (investor or credit institution) that examines the possibility of cooperating with a firm, would be interested in determining its performance and viability, and predicting any possible problems that the firm may face on its operation. Consequently, the establishment of reliable methodologies and models for assessing business failure risk is a problem of major practical importance.

The assessment of business failure risk was initially based on empirical methods introduced by large banks in the USA (evaluation of credit risk). Later on, more sophisticated statistical approaches have been used. The work of Altman in 1968 gave a new thrust to the research on the assessment of business failure risk introducing a multivariate statistical analysis approach based on discriminant analysis. Following this framework, the research on business failure during the 1970s and 1980s was focused on the application of techniques such as logit and probit analysis, the linear probability model, etc.

The statistical restrictions of the multivariate statistical analysis approach, along with its inability to consider the qualitative factors that affect business failure led the researchers towards the exploitation of other scientific fields. Expert systems, neural networks, rough sets, machine learning, mathematical programming, and multicriteria decision aid are among the most popular approaches used in the assessment of business failure risk during the last two decades (Zopounidis and Dimitras, 1998). These new approaches provide a non-parametric framework for developing models for assessing business failure risk in a more realistic and flexible context. They are able to consider the multidimensional nature of business failure, while most of them take into account both the quantitative factors (financial ratios) as well as the qualitative ones (strategic variables) that affect the internal operation of a firm and its relation with its external business environment. These features have resulted to the establishment of these new approaches as alternatives to multivariate statistical analysis for the assessment of business failure risk. The necessity of developing such new methods for assessing has also been pointed out by J.C. Paradi (1998) in the previous issue of this Newsflow. Actually, today the applications of such techniques override the classical statistical approaches, which are mainly considered for comparative purposes.

However, although these new approaches have proven to be efficient for assessing business failure risk in several research papers in the international literature, their success in practice depends heavily on their implementation in software packages that are specifically designed to assess business failure risk. Thus, the development of integrated, user-friendly and efficient decision support systems and knowledge-based systems is the next step towards the advancement of the research on the assessment of business failure risk.

Paradi, J.C. (1998), "Company failures: Can we predict it and then avoid?", *Newsflow: The Newsletter of the EURO Working Group on Financial Modelling*, no. 18, Autumn.

Zopounidis, C. (1998), *Operational tools in the Management of Financial Risks*, Kluwer Academic Publishers, Dordrecht.

Zopounidis, C. and Dimitras, A.I. (1998), *Multicriteria Decision Aid Methods for the Prediction of Business Failure*, Kluwer Academic Publishers, Dordrecht.

Constantin Zopounidis

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;
The present feature issue on financial modelling, edited by J. Spronk, is the first in a series of feature issues, published by the European Journal of Operational Research together with the EURO Working Group on Financial Modelling. You will find the table of contents of this feature issue on the next page.

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 next feature issue is well underway and is Guest Edited by Jaap Spronk, Erasmus University, and Nico van der Wijst, The Norwegian University of Science and Technology.

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

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Techn. Management
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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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EURO Prize for the best applied paper

First announcement

The EURO 2000 Conference (to be held in Budapest in July 2000) will be marked, like all EURO Conferences since 1995, by the competition for the “**EURO Prize for the best applied paper**”. All interested authors are invited to submit papers describing an application of Operational Research which has original features, whether in methodology, application or implementation.

The purposes of the competition are:

- to recognise outstanding accomplishments in the practice of Operational Research,
- to attract more application-oriented papers to EURO Conferences,
- to promote the practice of Operational Research in general.

In submitting a paper, the authors should pay attention to the following:

- it will be presented at the EURO-2000 Conference in case of selection,
- it has not been submitted concurrently to another competition,
- the jury may take whatever contacts it feels appropriate to evaluate the paper,
- in case it is selected in the short-list, the paper will be submitted to a feature issue of EJOR guest-edited by the chairman of the jury. The jury will review the various submissions and select a short-list of finalist papers,
- the fees of the authors of the finalist papers will be waived (in case of multiple authors it is understood that fees are waived for only one of the authors). These papers will be presented in one or, in exceptional cases, several “special sessions” organised by the chairman of the jury.

The winner of the Prize will be determined by the jury after the presentation of the finalist papers in the special session. The winner of the Prize will be announced by the chairman of the jury during the closing session. The winner of the Prize will give a brief presentation (15 minutes) of the paper. The EURO Prize for the best applied paper should be considered as a considerable honour. The Prize in itself will consist of:

- an ad-hoc certificate and medal,
- the exemption of fees for the next three EURO Conferences (in case of multiple authors, it is understood that there will be only three exemptions).

The schedule for the EURO 2000 Conference is as follows

- 30 November 1999: Deadline for the submission of papers.
- December 1999 - March 2000: Jury examines submissions.
- April 2000: Jury announces the finalists papers. Referees are selected for the finalist papers. Composition of the special sessions transmitted to the Programme and Organising Committees. Special sessions are widely publicised in the Final programme.
- July 2000: Special sessions organised by the chairman with the finalist papers. Winner of the Prize announced during the closing session. Winning paper is briefly presented during the closing session.

All papers must be submitted in paper form as well as in electronic form (Word 6.0/95) attachment to an email to the Chairman of the Jury Professor Costas P.Pappis at the following address:

University of Piraeus
Dept.of Industrial Management
80 Karaoli & Dimitriou Str.
18534 Piraeus
Greece
Tel. (+301) 4222060, 4120751/ext.316
Fax (+301) 4179064
email pappis@unipi.gr

IFORS '99
15th World Conference on
Operational Research

Triennial Meeting of the International Federation of Operational Research Societies -- IFORS.

Hosted by the Operations Research Society of China

Beijing, China, August 16-20, 1999

For more information:

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Information also available on the internet-site:
<http://www.ifors.org/leaflet/triennial.html>

Members of our working group who are interested in organizing one or more sessions on financial modelling, are kindly requested to contact the chairman or the program committee:

Prof. Paolo Toth
DEIS – University of Bologna
Viale Risorgimento 2
40136 Bologna
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Multinational
Finance Society
6th Annual Conference

6th Annual Conference of the Multinational Finance Society.

Toronto, Canada, July 7-10, 1999

The purpose of the Multinational Finance Society is to disseminate and to promote financial knowledge, philosophies, techniques, and research findings pertaining to industrialized and developing countries among members of the international academic and business communities.

For more information:

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Fax: +1 609 2256632
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Or
E-mail: gathanas@mach1.wlu.ca

Information also available on the internet site:
<http://camden-www.rutgers.edu/~mfs>

If you want to volunteer as a discussant for one of the session papers, please contact Professor Athanassakos, to be added to the program.

25th EWG Meeting

The 25th meeting will be held in Vienna, Austria, from November 18-20, 1999.

This meeting will be organized by:

Prof.dr. Otto Loistl

For further information please contact him at:

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Und Finanzmärkte
Avda de los Naranjos s/n
1090 Vienna
AUSTRIA
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Email: otto.loistl@isis.wu-wien.ac.at**

Valencia – 8-10 April 1999

Preliminary Program

Thursday April 8, 1999

- 08.30 Registration and Welcome
09.30 Opening Meeting
- 10.15 *Plenary Session:*
“A reality check for data snooping”
Prof. Halbert White
- 11.15 Coffee Break
- 11.45 Session I: *Financial Theory*
- 13.30 Lunch
- 15.00 Session II: *Financial Time Series*
- 17.00 Tea Break
- 17.15-
19.00 Session III: *Risk Analysis*
- 19.30 Excursion and typical dinner

Friday April 9, 1999

- 8.30-
11.00 Session IV: *Portfolio Analysis*
- 11.00 Coffee Break
- 11.30 Session V: *Financial Institutions*
- 13.30 Lunch
- 15.00 Session VI: *Microstructure and
Corporate Finance*
- 17.00 Tea Break
- 17.15-
18.35 Session VII: *Methods in Finance*
- 19.00 Sightseeing city tour and Social Dinner

Saturday April 10, 1999

- 9.00-
11.00 Session VIII: *Financial Models*
- 11.00 Coffee Break
- 11.30 Session IX: *Derivatives*
- 13.00 Closing Meeting and Good bye Wine
- 13.30 Excursion and Lunch

This preliminary program can also be found on the internet-site:

<http://www.uv.es/euro24/>

Information

This meeting is organized by:

Maria Bonilla

For further information please contact her at:

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Fax: +34-6-3828370
Email: Maria.Bonilla@uv.es

Abstracts

The abstracts of this meeting can be found on the internet-site of this Euro Working Group meeting:

<http://www.uv.es/euro24/>

Next meeting(s)

The Spring 2000 meeting will be organised in Trondheim, by Nico van der Wijst.

The Autumn 2000 meeting will be organised in New York, by Anoop Rai.

Offers to organise the Spring meeting in 2001 are welcome.

Working Papers

From the Rotterdam Institute for Business Economic Studies (RIBES), Erasmus University Rotterdam, Room H15-1, 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. | 9606/F | Greco S, The splitting property of fuzzy financial laws, September 1996. |
| 9405/F | Smit, J.T.J., The flexibility value of strategic investments under competition, March 1994. | 9612/F | Post, T. and J. Spronk, Interactive data envelopment analysis, September 1996. |
| 9414/F | Spronk, Jaap and Erik M. Vermeulen, Interfirm performance evaluation under uncertainty: A multi-dimensional framework, September 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. |
| 9422/F | Brouwer, Frank, Paul C. van Aalst and Nico L. van der Sar, Investment risk and risk management revisited, November 1994. | 9616/F | Soppe, A.B.M., De rol van rente, geld en vermogen in het wereld economisch proces: een ethische beschouwing. |
| 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. | 9707/F | Post, Th. and J. Spronk, Bank performance bench-marking in stochastic environments using log-linear mean-variance data envelopment analysis. |
| 9502/F | Higson, Chris and Jamie Elliott, Post-takeovers returns - The UK evidence, March 1995. | 9711/F | Groenendijk, A.A. and J. Spronk, Portfolio performance through the eyes of monkeys. |
| 9503/F | Groenendijk, A.A. and E.E. Hagen, Solving the capital structure puzzle: The government as a stakeholder in the firm, March 1995. | 9713/F | Spronk, J. and E.M. Vermeulen, Interfirm performance evaluation under uncertainty. |
| 9504/F | Vermeulen, Erik M., Jaap Spronk and Nico van der Wijst, Analysing risk and performance using the multi-factor concept, april 1995. | 9719/F | Meulen, J. van der and J. van der Voort, Er valt wat te zeggen voor passief beleggen. |
| 9505/F | Vermeulen, Erik M., Jaap Spronk and Nico van der Wijst, A Framework for conditional failure prediction, April 1995. | 9721 | Post, G.T., Transconcave Data Envelopment Analysis |
| 9508/F | Brännback, M. and J. Spronk, A multidimensional framework for strategic decisions, June 1995 | 9822 | Kouwenberg, R., Dynamic Portfolio Insurance: A Stochastic Programming Approach |
| 9509/F | Hallerbach, W.G. and J.Spronk, Portfolio management for the non-average investor, June 1995. | 9824 | Soppe, A., Capital, Interest and Ethics: Some Empirical Explorations of an Ethical Approach of economic growth |
| 9520/F | Soppe A., De duurzaamheid van het internationale geld en bankstelsel: Een ethische beschouwing, September 1995. | 9847 | Post, G.T., Estimating non-convex production sets using transconcave DEA |
| 9526/F | Groenendijk, A.A., Investeren, kasstroomprojectie en ondernemingswaarde, December 1995. | | |

Working Papers

From the Erasmus Center for Financial Research (ECFR), Erasmus University Rotterdam, Room H5-9, P.O. Box 1738, 3000 DR Rotterdam, The Netherlands, the following papers can be ordered:

- | | | | |
|------|---|------|--|
| 9501 | Martin Martens and Paul Kofman, Intraday leads and lags with index-futures arbitrage. | 9702 | Terry H.F. Cheuk and Ton C.F. Vorst, Average rate caps. |
| 9502 | Philip H. Franses and Olaf van Thull, Forecasting stock market volatility using (nonlinear) GARCH models. | 9703 | Philip Hans Franses and Hendrik Ghijsels, outliers, GARCH and forecasting volatility. |
| 9503 | Guus C.E. Boender and Fred Heemskerk, A static scenario optimization model for asset/liability management of defined benefit plans. | 9704 | Cees Dert and Bart Oldenkamp, Optimal guaranteed portfolios and the casino effect. |
| 9504 | Guus C.E. Boender, A hybrid simulation/optimization scenariomodel for asset/liability management. | 9705 | Fabio Mercurio and Ton C.F. Vorst, Option pricing hedging at fixed trading dates. |
| 9505 | Ivo J.M. Arnold and Chamiel de Koning, The effect of diverging inflation trends on exchange rates. | 9706 | Frans A. de Roon, Theo E. Nijman and Chris Veld, Analyzing specification errors in models for future premia with hedging pressures. |
| 9506 | D.J.E. Baestaens and W.M. van den Bergh, The marginal contribution of news to the DEM/USD swap rate. | 9707 | Bart Oldenkamp and Ton C.F. Vorst, Time and option pricing theory: another perspective. |
| 9601 | Monique Donders and Ton Vorst, The Impact of Firm Specific News on Implied Volatilities. | 9708 | Martin Martens and Onno Steenbeek, Open outcry electronic trading systems: the Case of the Nikkei market. |
| 9602 | Philip Hans Franses and Paul van Homelen, On Forecasting Exchange Rates Using Neural Networks. | 9709 | Guus C.E. Boender, Paul C. van Aalst and Fred Heemskerk, Modelling & management of assets & liabilities of pension plans in the Netherlands. |
| 9603 | Dick van Dijk, Philip Hans Franses and André Lucas, Testing for ARCH in the Presence of Additive Outliers. | 9710 | Guus C.E. Boender, Bart Oldenkamp and Martijn Vos, Solvency insurance with optioned portfolios: an empirical investigation. |
| 9604 | Antoon Pelsser and Ton Vorst, Optimal Optioned Portfolios with Confidence Limits on Shortfall Constraints. | 9711 | Frans A. de Roon, Theo E. Nijman and Bas J.M. Werker, Testing for mean-variance spanning with short sales constraints and transaction costs: the case of emerging markets. |
| 9605 | Terry Cheuk and Ton Vorst, Complex Barrier Options. | 9712 | Ronald Mahieu and Rob Bauer, A Bayesian analysis of stock return volatility and trading volume. |
| 9606 | Fabio Mercurio and Juan Moraleda, An Analytically Tractable Interest Rate Model with Humped Volatility. | | |
| 9607 | Juan Moraleda and Ton Vorst, Pricing American Interest Rate Claims with Humped Volatility Models. | | |
| 9608 | Ronald van Dijk, Teun Kloek and André Lucas, Forecasting Stock Returns using Bilinearities in Fundamentals and Macroeconomic Variables. | | |
| 9609 | Guus Boender, Fred Heemskerk and Sacha van Hoogdalem, Asset/Liability Management: De Indexerings Afspraken. | | |
| 9701 | Philip Hans Franses and Kasper van Griensven, Forecasting exchange rates using neural networks for technical trading rules. | | |

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, 22 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 and Poland. 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. You can find the latest edition of *NEWSFLOW* on the internet page:

<http://www.eur.nl/few/finbel/htmls/finFLOW.html>

Membership

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

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