

## Scientific Committee

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Local organization : Henry TULKENS

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#### CORE FOUNDATION

Center for Operations Research and Econometrics, Université Catholique de Louvain  
Louvain-la-Neuve

#### SMASH

Séminaire de Mathématiques Appliquées aux Sciences Humaines  
Facultés Universitaires Saint-Louis, Bruxelles

#### CIRIEC

Centre International de Recherches et d'Information sur l'Economie Publique, Sociale et Coopérative Liège

#### CIM

Collège Interuniversitaire d'Etudes Doctorales dans les Sciences du Management  
Bruxelles

#### EIASM

European Institute for Advanced Studies in Management  
Brussels

EUROPEAN WORKSHOP  
on

## EFFICIENCY AND PRODUCTIVITY MEASUREMENT IN THE SERVICE INDUSTRIES

October 20 & 21, 1989

### PROGRAM and TIME SCHEDULE

CENTER FOR OPERATIONS RESEARCH AND ECONOMETRICS  
34, Voie du Roman Pays, B-1348 Louvain-la-Neuve, Belgium

Morning

9:00 INTRODUCTORY REMARKS : Henry TULKENS

SESSION A - Methodological Issues I

Chair : Bernard THIRY, Université de Liège and CIRIEC

- 9:05 A1 Finn FØRSUND, University of Oslo and Lennart HJALMARSSON, University of Göteborg  
"Approaches to the measurement of productivity and efficiency: An overview"
- 9:50 A2 Henry TULKENS, CORE, Université Catholique de Louvain and Facultés universitaires Saint-Louis, Bruxelles  
"FDH frontier estimates: a review of conceptual and methodological characteristics"

10:35 Coffee break

- 11:00 A3 Léopold SIMAR, Facultés universitaires Saint-Louis, Bruxelles, and CORE, Université Catholique de Louvain  
"Estimating efficiencies from frontier models with panel data: a comparison of parametric, non parametric and semi-parametric methods"
- 11:45 Discussant: Jacques MAIRESSE, Ecole Nationale de la Statistique et de l'Administration Economique, Paris.

12:30 Lunch

Afternoon

SESSION B - Applications I

Chair : Lennart HJALMARSSON, University of Göteborg

Medical services:

- 14:00 B1 Rof FÅRE and Shawna GROSSKOPF, University of Southern Illinois at Carbondale and B. LINDGREN and Pontus ROOS, The Swedish Institute for Health Economics, Lund  
"Productivity developments in Swedish hospitals: A Malmquist output index approach"
- 14:25 B2 Ingvar WESTERBERG, University of Linköping  
"Technical efficiency in public dental care in Sweden"

Banking services:

- 14:50 B3 Sigbjørn BERG, Bank of Norway, Finn FØRSUND, University of Oslo and Eilev JANSEN, Bank of Norway  
"Bank output measurement and the construction of best practice frontiers"
- 15:15 B4 Catherine DEMAIN, Alain NAGLY, Henry TULKENS and Philippe VANDEN EECKAUT, CORE, Université Catholique de Louvain  
"Productive efficiency measurement in retail banking in Belgium"

15:40 Coffee break

Social and municipal services:

- 16:15 B5 Hans BJUREK and Lennart HJALMARSSON, University of Göteborg and Finn FØRSUND, University of Oslo  
"Parametric and non parametric estimation of efficiency in Swedish local social insurance offices: a comparison"
- 16:40 B6 Marie-Astrid JAMAR, Henry TULKENS and Philippe VANDEN EECKAUT, CORE, Université Catholique de Louvain  
"A cost-efficiency study of the activities of 234 municipalities in Belgium"

19:00 Dinner at "La Cuisine des Champs"

Morning

SESSION C - Methodological Issues II

Chair : Finn FØRSUND, University of Oslo

- 9:00 C1 Erik MELLANDER, The Industrial Institute for Economic and Social Research(IUI), Stockholm  
"On the econometric analysis of production when there are no output data"
- 9:40 Discussant: Joan MUYSKEN, University of Maastricht

- 9:50 C2 Dominique DEPRINS, Facultés Universitaires Saint-Louis, Bruxelles  
"Introducing exogenous explanatory factors in deterministic production frontiers"

10:15 Coffee break

- 10:40 C3 Niels. C. PETERSEN and Ole OLESEN, University of Odense,  
"Chance constrained efficiency evaluation"
- 11:20 Discussant: Etienne LOUTE, Facultés Universitaires Saint-Louis, Bruxelles, and CORE, Université Catholique de Louvain

- 11:30 C4 Terje VASSDAL, University of Tromsø,  
"A method to compare average and deterministic frontier functions"
- 12:10 Discussant: Bernard THIRY, Université de Liège and CIRIEC

12:30 Lunch

Afternoon

SESSION D - Applications II

Chair : Pierre PESTIEAU, Université de Liège and CORE

Transportation:

- 14:00 D1 Bernard DELHAUSSE, Sergio PERELMAN and Bernard THIRY, Université de Liège and CIRIEC  
"Efficiency in Belgian urban and interurban bus transportation"
- 14:20 D2 Pierre BARLA and Sergio PERELMAN, Université de Liège  
"Productivity comparison of airline companies"
- 14:40 D3 Henri Jean GATHON, Université de Liège  
"Measuring technical efficiency in the European railroad industry by means of a stochastic production frontier"

15:00 Coffee break

Construction and retail distribution:

- 15:15 D4 Rolf ALBRIKTSSEN, Norwegian Building Research Institute and Finn FØRSUND, University of Oslo  
"Productivity in Norwegian construction"
- 15:35 D5 Lennart HJALMARSSON and Ann VEIDERPASS, University of Göteborg  
"Productivity, growth and productive efficiency in Swedish electricity retail distribution"

Judicial services:

- 15:55 D6 Finn FØRSUND, University of Oslo, Erik HERNÆS and Sverre KITTELSEN, Center for Applied Economic Research, Oslo  
"Productivity in public service production, with an application to courts"
- 16:15 D7 Marie Astrid JAMAR and Henry TULKENS, CORE, Université Catholique de Louvain  
"Applying productive efficiency measurement to Belgian courts"

16:35 - 16:45 CONCLUDING REMARKS : Bernard THIRY

## Participants

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