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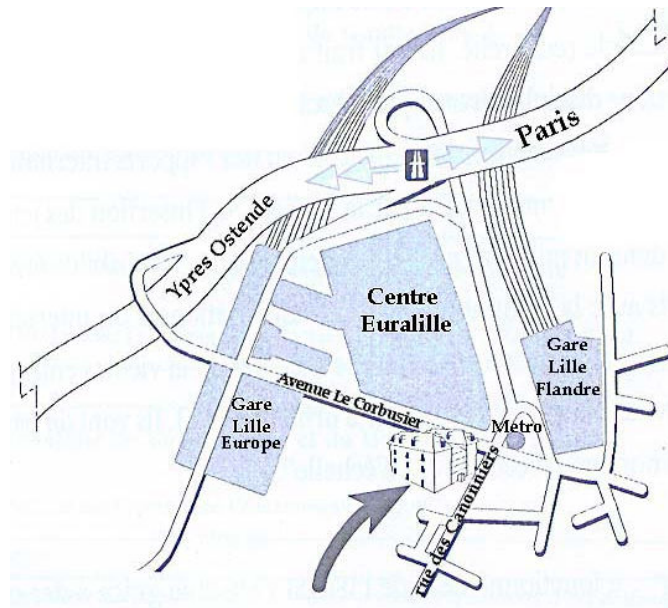
Dear colleagues,

You are cordially invited to a seminar of GAPEM on Thursday October 28th 2004, 14h00-17h00 at IFRESI, 2 rue des Canoniers, Lille (FRANCE). This seminar is also part of the LABORES (CNRS-URA 362) cycle of seminars.

PROGRAM

Bert Balk (Erasmus University Rotterdam & Statistics Netherlands)
 The Measurement and Decomposition of Productivity Change:
 Exercises on the Netherlands' Manufacturing Industry

Co-author of this paper is Ellen Hoogenboom-Spijker. An abstract is found on the next page. A brief list of recent publications of Prof. Balk is also added. For any additional information on this event, please do not hesitate to contact: k.kerstens@ieseg.fr



The Measurement and Decomposition of Productivity Change:
Exercises on the Netherlands' Manufacturing Industry
B. Balk (Erasmus University Rotterdam & Statistics Netherlands)

Abstract:

An important issue in productivity measurement, with potential influence on national economic policy design, concerns the relation between aggregate and firm-level figures. Aggregate productivity change depends not only on intra-firm productivity change, but also on the dynamic process of expansion and contraction of firms, emergence of new firms, and disappearance of old firms. Amongst researchers there is discussion not only on the proper decomposition method but also on other conceptual issues.

Taking the Netherlands' part of the study on productivity and firm dynamics, coordinated by the Economics Department of the OECD (see OECD 2001a), as our point of departure, this study focuses on the sensitivity of the results.

First, we conclude that the decomposition methods, discussed by Balk (2003), can be grouped into two sets, between which the results differ remarkably. Using one set of methods, the continuing firms appear to account for most of the aggregate productivity change. Using the other set, the entering and exiting firms appear to be the most important players. Second, the sensitivity of the results with respect to the productivity concept used (based on gross output or value added) will be examined. For example, it appears that gross output based measures lead to lower percentages of annual productivity change than value added based measures. Finally, supplementing production survey data with information from the business register leads to a more precise definition of the entry and exit process. This in turn appears to lead to a significantly lower contribution of entering and exiting firms to aggregate productivity change.

A selection of publications of Prof. B. Balk:

- Balk, B.M. (1998) *Industrial Price, Quantity, and Productivity Indices: The Micro-Economic Theory and an Application*, Boston, Kluwer.
- Balk, B.M. (2001) Scale Efficiency and Productivity Change, *Journal of Productivity Analysis*, 15(3), 159-183.
- Balk, B.M. (2003) The Residual: On Monitoring and Benchmarking Firms, Industries and Economies with Respect to Productivity, *Journal of Productivity Analysis*, 20(1), 5-47.
- Balk, B.M. (2004) Decompositions of Fisher Indexes, *Economics Letters*, 82(1), 107-113.
- Balk, B.M., W.E. Diewert (2001) A Characterization of the Törnqvist Price Index, *Economics Letters*, 72(3), 279-281
- Balk, B.M., R. Fare, S. Grosskopf (2004) The Theory of Economic Price and Quantity Indicators, *Economic Theory*, 23(1), 149-164.
- Balk, B.M., G. Van Leeuwen (1999) Parametric Estimation of Technical and Allocative Efficiencies and Productivity Changes: A Case Study, in: Biffignandi, S. (ed.) *Micro- and Macrodataba of Firms: Statistical Analysis and International Comparison*, Heidelberg, Physica, 319-347.