

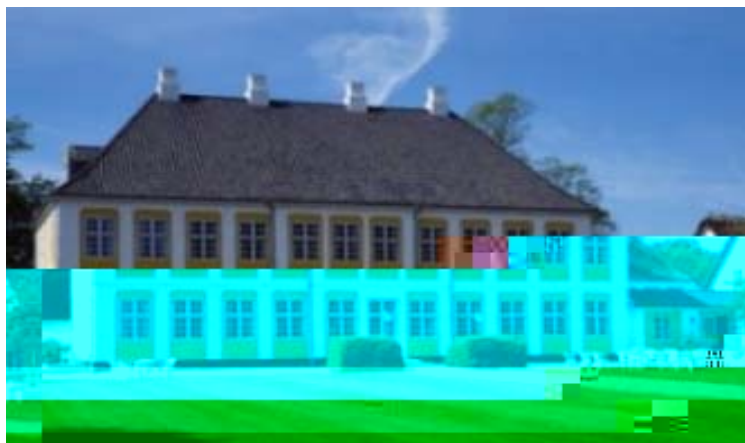
# Aarhus Colloquium of Meta-Analysis in Economics

*SEPTEMBER 27-30, 2007*



Convened at: *Sandbjerg Manor, Sønderborg, Denmark*

Sponsored by: *The University of Aarhus, Aarhus, Denmark*



## **Organizers:**

***Hristos Doucouliagos***: Professor of Economics, Deakin University, Australia

***Martin Paldam***: Professor of Economics, University of Aarhus, Denmark

***T.D. Stanley***: Professor of Economics and Busi

**Day 1, Thursday: September 27.** Participants arrive  
Light Dinner and evening Drinks. Brief welcome from Martin Paldam.

**Day 2, Friday: September 28**

7:30 to 8:30: breakfast

8:30 to 8:45: **Bent Jesper Christensen** to welcome attendees

8:45 to 10:15: **Plenary Session A:** (Chair: **Bent Jesper Christensen**)

**Martin Paldam** (Aid, Growth and the Reluctancy Hypothesis) and  
**Chris Doucouliagos** (Theory Competition and Selectivity: A Meta-Meta-Analysis)

10:15-10:45: **Coffee Break**

10:45 to 12:15: **Plenary Session B:** (Chair: **Randy Rosenberger**)

**Jacques Poot** (Learning from the Flood of Numbers: Meta-Analysis in  
Economics) and  
**T.D. Stanley** (Getting Beyond Publication Bias)

12:15 to 13:45: **Lunch**

13:45 to 15:15: **Plenary Session C:** (Chair: **Jacques Poot**)

**Randall Rosenberger** (Selection Effects in Meta-Valuation Function Transfers)  
and  
**Raymond Florax** (Meta-Regression Estimates for CGE Models)

15:15-15:45: **Coffee Break**

15:45 to 17:30: **Parallel Session A1**, 3 presentations

15:45 to 17:30: **Parallel Session A2**, 3 presentations

15:45 to 16:15, 1<sup>st</sup> speaker

16:20 to 16:50, 2<sup>nd</sup> speaker

16:55 to 17:25, 3<sup>rd</sup> speaker

17:30 to 18:00: Walk depending on the weather

18:00 to 19:00: Dinner

19:00 to 23:00: drinks and chat.

**Day 3, Saturday: September 29**

7:30 to 8:30: breakfast

8:30 to 8:45: Brief announcements.

8:45 to 10:30: **Plenary Session D:** (Chair: **Raymond Florax**)

**Tammo Bijmolt** (Generalizations on Pharmaceutical Marketing Effectiveness)

**Henri L.F. de Groot** (Agglomeration, Innovation and Regional Development: Theoretical Perspectives and Meta-Analysis)

**Craig Gallet:** (The Demand for Alcohol: A Meta-Analysis of Elasticities)

10:30-10:45: **Coffee Break**

10:45 to 12:30: **Parallel Session B1**, 3 presentations

10:45 to 12:30: **Parallel Session B2**, 3 presentations

10:45 to 11:15, 1<sup>st</sup> speaker

11:20 to 11:50, 2<sup>nd</sup> speaker

11:55 to 12:25, 3<sup>rd</sup> speaker

12:30 to 13:45: **Lunch**

13:45 to 15:15: **Plenary Session E:** Open Forum: The Future of Meta-Analysis and AMAES  
(Association of Meta-Analysts for Economic Science)?

15:30 to 17:30: Walk depending on the weather

18:00 to 19:00: Dinner: After dinner speeches, Martin Paldam.

19:00 to 23:00: drinks and chat.

**Day 4, Sunday: September 30**, departure

7:30 to 8:30: breakfast

## **Parallel Sessions**

### **A1. International Trade and Migration. (Chair: Bruno Biais)**

**Geoff Pugh:** (The Effects of Exchange Rate Variability on International Trade: A Meta-Regression Analysis)

**Simonetta Longhi:** (Meta-Analysis of Empirical Evidence on the Labour Market Impacts of Immigration)

**Maria Cipollina:** (Reciprocal Trade Agreements in Gravity Models: A Meta-Analysis)

### **A2. Downsizing, Unions and Reform (Chair: Chris Doucouliagos)**

**Patrice Laroche:** (Union and Firm Profits: A Meta-Analysis)

**Gunter Capelle-Blancard:** (How Do Shareholders Respond to Downsizing: A Meta-Analysis)

**Ian Babetskii:** (Does Reform Work? An Econometric Examination of the Reform-Growth Puzzle)

### **B1. Macro-Political Economy. (Chair: Martin Paldam)**

**Ahmad Saleh** ETEMC /P /MCID 5 BDC 15 BDC 15 BDC 15 BDC 15 BDC 01nDC BT/TT2 1 T



avenues for further development of techniques that are likely to be most fruitful. Specifically, we assess the impacts of quality differences among studies, differences in the measurement of effect sizes and the related differences in interpretation of the meta-analytical results, selection and publication bias in available study results, and heterogeneity and dependence within and between studies. We conclude by providing an overall evaluation of the methodology and advocate the widespread use of carefully conducted meta-analysis in empirical economic research. We also put forward some desiderata for the further advancement of meta-analysis in the economics profession, including the desirability of meta-regression specifications being more strongly informed by economic theory.

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### **Getting Beyond Publication Selection Bias**

*T.D. Stanley*: Department of Economics, Hendrix College, Conway, AR, USA

This presentation investigates methods to identify publication selection, to detect the presence of a genuine empirical effect beyond the contamination of publication selection, and to estimate the magnitude of this empirical effect, corrected for publication selection. Publication selection exists when editors, reviewers or researchers have a preference for statistically significant results. Over the last several years, I have been investigating and developing MRA methods to deal with the widespread and often overwhelming publication bias that is routinely found in economic research. Here, I wish to share which of these methods work and which do not. Simulations show that simple meta-regression models that use precision ( $1/SE$ ) and/or the standard error ( $SE$ ) are found to be robust against publication selection bias. Even if a literature is dominated by large and unknown misspecification biases, these MRA methods can provide viable strategies for detecting and estimating genuine empirical effects. *When research is all askew, precision to the rescue.*

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### **Plenary Session C:**

#### **Selection Effects in Meta-Valuation Function Transfers**

*Randall S. Rosenberger*: Dept. of Forest Resources, Oregon State University, Corvallis, OR

*Robert J. Johnston*: Dept. of Agricultural and Resource Economics, University of Connecticut, USA

This paper coordinates original empirical results with prior findings from the meta-analysis literature to elucidate issues, tradeoffs and concerns related to selection biases in meta-analysis benefit transfer. We begin with conceptual discussions of primary issues, followed by illustrations of potential implications based on case-study metadata addressing values for a range of different natural resources. The discussion highlights related tradeoffs facing meta-analysts who seek to apply results for benefit transfer, the state-of-the-literature with regard to these tradeoffs, potential solutions to remaining concerns, and crucial areas for future research.

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#### **Meta-Regression Estimates for CGE Models: A Case Study for Input Substitution Elasticities in Production Agriculture**

*Kathryn A. Boys*: Dept. of Agricultural Economics, Purdue University, USA

*Raymond J.G.M. Florax*: Dept. of Agricultural Economics, Purdue University, USA

The selection of appropriate parameters for computable general equilibrium (CGE) models critically affects the results of applied economic modeling exercises. Valid and reliable parameter selection models are needed, and typically comprise direct estimation, expert opinion, or copycatting of results

from seminal studies. The purpose of this study is to use meta-analysis to summarize and more accurately estimate elasticities of input substitution, specifically between labor and other inputs in agricultural production. We construct a comprehensive database of elasticity estimates through an extensive literature review, and perform a meta-regression analysis to identify structural sources of variation in elasticity estimates sampled from primary studies. The use of meta-analysis contributes to improved baseline analysis in CGE simulations because it allows for the computation of input parameters tailored to a specific CGE model setup. We correct for variations in research design, which are typically constant within studies, and account for bias associated with undue selection effects associated with editorial publication decision processes. We suggest a strategy by which improved accuracy and knowledge of the distribution of imputed input parameters derived from a meta-analysis can contribute to improved performance of CGE sensitivity analyses.

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**Parallel Session A1:**

**The Effects of Exchange Rate Variability on International Trade: A Meta-Regression Analysis**

*Bruno Ori* :, Department of Economics, University of Split, Split, Croatia.

*Geoff Pugh*: Staffordshire University Business School, Stoke-on-Trent, UK.

The trade effects of exchange rate variability have been an issue in international economics for the  
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## **Reciprocal Trade Agreements in Gravity Models: A Meta-Analysis**

*Maria Cipollina:* Dept. of Economics, Università degli Studi del Molise, Campobasso, Italy

*Luca Salvatici:* Dept. of Economics, Università degli Studi del Molise, Italy

Over the time a large number of reciprocal preferential trade agreements (RTAs) have been concluded among countries. Recently many studies have used gravity equations in order to estimate the effect of RTAs on trade flows between partners. These studies report very different estimates, since they differ greatly in data sets, sample sizes, and independent variables used in the analysis. So, what is the “true” impact of RTAs? This paper combines, explains, and summarizes a large number of results (1827 estimates included in 85 papers), using a meta-analysis (MA) approach. Notwithstanding quite an high variability, studies consistently find a positive RTAs impact on bilateral trade: the hypothesis that there is no effect of trade agreements on trade is easily and robustly rejected at standard significance levels. We provide pooled estimates, obtained from fixed and random effects models, of the increase in bilateral trade due to RTAs. Finally, information collected on each estimate allows us to test the sensitivity of the results to alternative specifications and differences in the control variables considered.

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### **Parallel Session A2:**

#### **Union and Firm Profits: A Meta-Analysis**

*Patrice Laroche:* Department of Management, Nancy University, Nancy, France

*Hristos Doucouliagos:* Department of Economics, Deakin University, Melbourne, Australia

Meta-regression analysis is applied to the population of 45 studies with 532 estimates of the direct effect of unions on profits. We show that unions have a significant negative effect on profits in the US. However, the evidence is inconclusive for the rest of the world. Separate meta-regression analysis is used to identify the sources of union-profit effects. The analysis of 604 estimates shows that market power reflected in industry concentration and investments in intangible assets (R&D and advertising), both have a positive effect on profits. The firms market share and physical capital investments do not have a positive effect on profits. A further meta-analysis of 239 estimates of unions interacted with hypothesized sources reveals that neither the market power nor the quasi-rent appropriation theories are supported. The literature has failed to reveal the source of union-profit effects. There is a clear need for additional primary research in this area.

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#### **How do Shareholders Respond to Downsizing? A meta-analysis**

*Gunther Capelle-Blancard:* Panthéon Sorbonne Economie, Université Paris, Paris, France

*Nicolas Couderc:* Reims Management School and Panthéon Sorbonne Economie

Massive layoffs announcements often attract extensive media coverage. Beyond the newsworthiness of such events, is such a decision in any way correlated to the company’s stock market performance? Do some firms resort to massive layoffs simply to please stockholder? In this paper, we offer a thorough review of the literature in an attempt to answer these questions. The core of the paper is a meta-analysis. We show that layoffs announcements have an overall negative effect on stock market prices, and this remains true whatever the country, the period of time or the type of firm considered. However, some factors may ease as well as worsen the stock market’s reaction to such announcements. The reason for the layoff decision is among the most decisive factors and the market sanction will be more severe in th





is rather mixed, although for each type of externality we can identify clearly how various aspects of primary study design, such as the adopted proxy for growth, the data used, and the choice of covariates influence the outcomes. We find that, although a relatively greater percentage of investigations of the competition effect support the Porter perspective, it is easier to explain differences between results on the impacts of diversity and specialization.

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### **The Demand for Alcohol: A Meta-Analysis of Elasticities**

*Craig Gallet:* Dept. of Economics, California State University, Sacramento, California, USA.

Numerous studies have estimated elasticities of alcohol demand using different procedures. Because of widespread differences in demand estimates, however, it is difficult to synthesize the literature into coherent meaning. This study improves our understanding of alcohol demand by reporting results from a meta-analysis of 132 studies. Specifically, regressing estimated price, income, and advertising elasticities of alcohol on variables accounting for study characteristics, we find alcohol elasticities to be particularly sensitive to demand specification, data issues, and various estimation methods. Furthermore, compared to other alcoholic beverages, beer elasticities tend to be more inelastic.

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### **Parallel Session B1:**

#### **Whither Corruption? A Meta-Regression Analysis Study**

*Nauro F. Campos:* Department of Economics, Brunel University, London

*Ahmad Saleh:* Department of Economics, Brunel University, London

In the last decade or so, economists started paying a great deal of attention to the issue of corruption in developed and developing countries. A number of theoretical models have been proposed and these have been accompanied by an even larger number of econometric analyses of the economic determinants and consequences of corruption. In the present study, we focus our attention on the econometric literature on the impacts of corruption on economic performance (as measured by per capita GDP growth rates). The underlying debate is whether corruption “greases or sands the wheels of commerce” or, in our case, the wheels of growth. For this paper we put together a data set comprising 469 coefficients of the effect of corruption on economic growth from 42 different studies. We use this data set to understand the effects of differences in estimation methods and econometric specification features on the significance and magnitude of the effect. We also pay special attention to the possibility of publication bias and to the important measurement issue uncovered by recent research (which stresses the differences between the use of subjective vis-à-vis objective measures of corruption).

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#### **Meta-Analysis of the Business Cycle Correlation Between the Euro Area and the CEECS**

*Jarko Fidrmuc:* Dept. of Economics, University of Munich, Germany and Department of

tend to be more conservative in their estimates than academics or eurosystem researchers, we find no evidence of a geographical bias in the studies.

### **Inflation and Central Bank Independence: A Meta Regression Analysis**

*Jeroen G. Klomp*: Department of Economics, University of Groningen, The Netherlands

*Jakob de Haan*: Department of Economics, University of Groningen, The Netherlands

Using 59 studies, we perform a meta-regression analysis of studies examining the relationship between inflation and central bank independence (CBI). There is a negative and significant relation between inflation and CBI in OECD countries, although the results are sensitive to the indicator used and the estimation period chosen. Studies based on simple bivariate regressions suffer from an omitted variable bias, but our results suggest that only an interaction variable of labour market characteristics and CBI reduces the significance of the CBI indicator. We find no significant differences between studies based on a cross-country or panel settings. Interestingly, over time the reported impact of CBI on inflation in journal articles increases.

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### **Parallel Session B2:**

#### **Capital-Energy Substitution and Shifts in Factor Demand: A meta-analysis**

*Mark J. Koetse* : Dept. of Spatial Economics, Vrije Universiteit, Amsterdam, The Netherlands

*Henri L.F. de Groot* : Dept. of Spatial Economics, Vrije Universiteit, Amsterdam, The Netherlands

*Raymond J.G.M. Florax*: Dept. of Spatial Economics, Vrije Universiteit, Amsterdam, The Netherlands

This paper presents a meta-analysis of capital-energy substitution elasticities. We distinguish between Morishima elasticities, which measure technological substitution potential, and cross-price elasticities, which measure actual percentage changes in capital demand in response to energy price changes. We estimate a meta-regression model with separate coefficients for the two elasticity samples. The results show that the heterogeneity in both the cross-price and Morishima elasticity samples can to a large extent be explained by study differences in, among others, model specification, data characteristics, region and time period. Controlling for potential sources of misspecification and aggregation bias we subsequently calculate short- and long-run elasticities for different regions and time periods. The resulting elasticities show that technological substitution potential is large, especially in the long run for North America. Despite substantial differences across regions and time periods, the estimated cross-price elasticities suggest capital-energy substitutability without exception.

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#### **20 Years of Stated Preference Valuation of Non-Timber Benefits from Fennoscandian Forests: A Meta-Analysis**

*Henrik Lindhjem*: Department of Economics and Resource Management, Norwegian University of Life Sciences, Ås, Norway

Stated preference (SP) surveys have been conducted to value non-timber benefits (NTBs) from forests in Norway, Sweden and Finland for about 20 years. The paper first reviews the literature and summarises methodological traditions in SP research in the three countries. Second, a meta-regression analysis is conducted explaining systematic variation in Willingness-to-Pay (WTP). Two important conclusions emerge, with relevance for future research: (1) WTP is found to be insensitive to the size of the forest, casting doubt on the use of simplified WTP/area measures for complex environmental



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