Newsletter
International Input-Output Association (IIOA)
Number 1; February, 2008

Editorial

Dear IIOA member,

SURPRISE....at least to most of you!!!

This is the first Newsletter from the IIOA. We thank IIOA Council member José Manuel Rueda-Cantuche for volunteering to be our first Newsletter Editor. His enthusiasm, combined with your help sending him I-O news, will ensure that you receive quarterly IIOA Newsletters. In them you will find news from about the Association as well as about pertinent outside affairs, including a listing of I-O-related articles and news items of interest to members.

As they are produced, the Newsletters will be archived on our website for you to consult at a later date. While our website is not new, the set of services it offers have been extended considerably over the last few years through the keen ability of Klaus Hubaceck our first Webmaster. More news, including a working paper series, will come from this front.

By now I am sure you have noticed that the frequency of our international input-output conferences has increased from around once every 3-4 years to a yearly event. Seville, José's home town, is our July 2008 destination, and São Paolo, also home to a very active I-O group, is our 2009 destination.

By the way, if your group is interested in hosting an IIOA conference after São Paolo, please contact me or our Secretary Norbert Rainer. Do so with sufficient lead time before our Seville meeting. We are pleased to receive all proposals. Of course, we will eventually like you to provide a basic set of information: Thus we will send a template of the data preferred upon request. We hope to announce at least one exciting venue for future conferences in Seville.

Finally, (PhD-)students and members from non-OECD countries should have noticed that their membership fee has been reduced from 60 to 15 US$, as of 2008. This was enabled by a much better contract with Taylor & Francis, the publisher of our journal Economic Systems Research. Your Council is investigating the possible extension of this reduction to other membership groups. It is also pursuing several exciting new initiatives.

The objective of the flurry of activity by Council is to entice new colleagues into the IIOA who, in turn, will share their own interesting IO-related news. And that, to complete the cycle, should make this Newsletter even more interesting and give it an even wider audience convinced of the scientific and social relevance of **(I-A)$^{-1}$** and its many extensions and variations.

Jan Oosterhaven, President IIOA

In December 2005 a survey was sent to Council members seeking their visions of future directions for our organization and fellow members, as well as for the future of input-output economics more generally. One robust result was demand for a web-based newsletter. A prime rationale was that it would help to keep members abreast of Council and other IIOA activities, members' research, etc.

In Istanbul, my first conference as your Council member, I volunteered to propose content for such a newsletter. Subsequently in September 2007, I solicited members and the Council for their ideas. Taking all suggestions into account, the newsletter will delivered quarterly. In its most complete form, it will include an editorial item; a feature article relating "Tales from the Input-Output World"; abstracts of I-O articles from journals related to our field, brief notes on key I-O frontiers and extensions; fast-breaking I-O research news; notices and links for relevant upcoming conferences; new releases of input-output databases (including links where possible); ongoing multinational research projects; job openings; teaching materials; etc. Bearing this in mind, we encourage you to send any news you think may be interesting to me: Jose.Rueda-Cantuche@ec.europa.eu. Please include all critical information to be announced (title, authors, lead-ins, description, links…) as well as your own contact information. Needless to say, your collaboration is absolutely crucial to the future of our Newsletter, especially to its relevance to fellow members and its longevity. Looking forward to your news!

José M. Rueda-Cantuche, Newsletter Editor IIOA

In this issue

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Tales from the Input-Output world

Sometimes input-output reaches the daily newspapers in unexpected ways. Almost always our contribution to mankind's welfare is hidden somewhere in methodological technicalities, which are not particularly interesting to the general reader. A good example is the set of revived discussions on taxing imported CO_2; the issue was front-page news, thanks mainly to the French president. However, how one estimates the CO_2 content of products our nations import is no easy matter; here our indispensable, technical work comes in to play.

Nonetheless, sometimes we do reach the frontlines. I had such a curious experience recently, and it may be interesting for you to learn how this came to be. For quite some time I have been working with Richard van den Berg, a Dutch economic historian working in London's Kingston University. Our shared interest concerns Quesnay's Tableau économique. The Tableau is known to the world as offering a somewhat idiosyncratic view of circular flow economics, told in a brand of mathematics that is no longer with us. The figure to the right displays Quesnay's strange pinball scheme--the famous zigzag. The point of his entire exercise was to show that the French ruling classes were ruining the country via their extravagant spending on luxuries and, often, completely useless production such as big castles and armies that get beaten regularly.

Interpreting the Tableau has always been a problem for economists who followed. One of the roads followed was to transcribe it into input-output format. This is not so easy because next to the odd mathematics being used, Quesnay employed, following physiocratic thinking of his day (recall, this is pre-revolutionary France), concepts like productive and non-productive industries and agricultural surpluses in the form of rents.

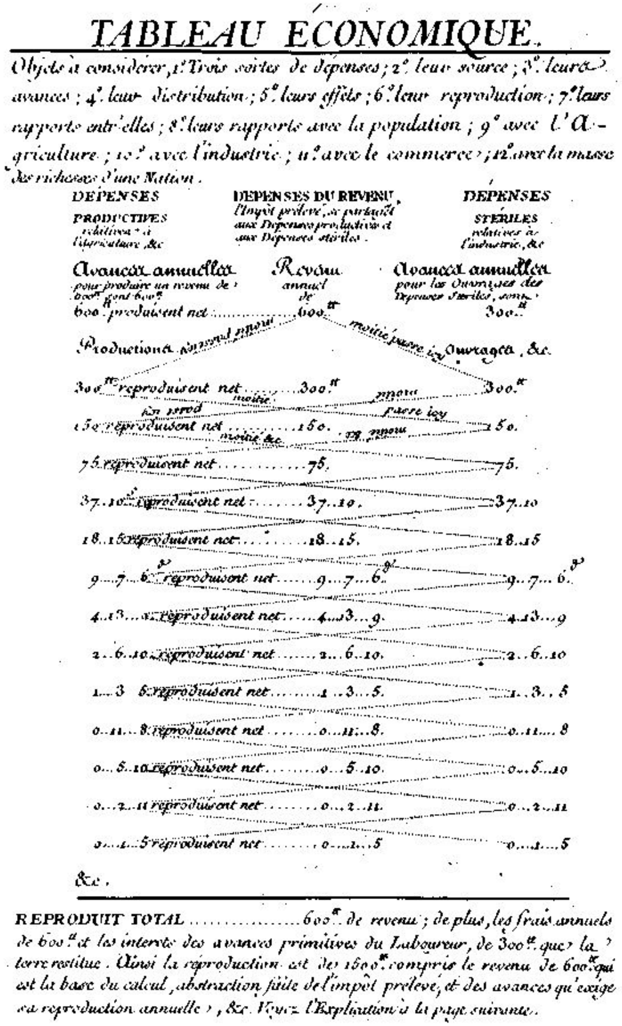

TABLEAU ÉCONOMIQUE.

Objets à considérer, 1°. Trois sortes de dépenses; 2°. leur source; 3°. leurs avances; 4°. leur distribution; 5°. leurs effets; 6°. leur reproduction; 7°. leurs rapports entr'elles; 8°. leurs rapports avec la population; 9°. avec l'Agriculture; 10°. avec l'industrie; 11°. avec le commerce; 12°. avec la masse des richesses d'une Nation.

DÉPENSES PRODUCTIVES relatives à l'Agriculture, &c.	DÉPENSES DU REVENU, l'Impôt prélevé, se partagent aux Dépenses productives et aux Dépenses stériles.	DÉPENSES STÉRILES relatives à l'industrie, &c.
Avances annuelles pour produire un revenu de 600.ᵗᵗ sont 600.ᵗᵗ	Revenu annuel de	Avances annuelles pour les Ouvrages des Dépenses stériles, sont
600.ᵗᵗ produisent net	600.ᵗᵗ	300.ᵗᵗ
Productions		Ouvrages, &c.
300.ᵗᵗ reproduisent net	300.ᵗᵗ	300.ᵗᵗ
150. reproduisent net	150.	150.
75. reproduisent net	75.	75.
37..10. reproduisent net	37..10.	37..10.
18..15. reproduisent net	18..15.	18..15.
9...7...6. reproduisent net	9...7...6.	9..7...6.
4..13...9. reproduisent net	4..13...9.	4..13...9.
2..6..10. reproduisent net	2..6..10.	2..6..10.
1...3...5. reproduisent net	1...3...5.	1...3...5.
0..11...8. reproduisent net	0..11...8.	0..11...8.
0...5..10. reproduisent net	0...5..10.	0...5..10.
0...2..11. reproduisent net	0...2..11.	0...2..11.
0...1...5. reproduisent net	0...1...5.	0...1...5.
&c.		

REPRODUIT TOTAL .... 600.ᵗᵗ de revenu; de plus, les frais annuels de 600.ᵗᵗ et les intérêts des avances primitives du Laboureur, de 300.ᵗᵗ que la terre restitue. Ainsi la reproduction est de 1500.ᵗᵗ compris le revenu de 600.ᵗᵗ qui est la base du calcul, abstraction faite de l'impôt prélevé, et des avances qu'exige sa reproduction annuelle, &c. Voyez l'Explication à la page suivante.

These concepts have not made it into standard input-output, and thus require some special attention. In 1955, a transcription of the Tableau into I-O format was presented by the American Almarin Phillips, in a famous article in *Quarterly Journal of Economics*. Quesnay's social classes became sectors, and the rents showed up as payments for landlords' services. Not bad actually, the Tableau had been transcribed into a 3 x 3 I-O table and that, at least, could be readily understood. So far, so good. There was, of course, a problem: the transcription seemed to show that Quesnay's main point could not be attained, i.e. that a shift towards more luxury consumption meant a lower surplus and, hence, ultimately a decline of French living standards. As a result some writers, such a Paul Samuelson, have dismissed the Tableau as no more than a footnote in the history of economics.

I always was puzzled by this; how could it be that on the basis of a transcription an original piece of research was deemed 'inconsistent'? Mightn't the transcription be the source of trouble? Here Richard van den Berg entered. His dissertation on 'dissident physiocrats' had focused his interest in the scholars of that period. When we discussed the problems and puzzles surrounding the Tableau, we found that Phillips had missed one essential point in constructing his table, i.e. his assumption of fixed coefficients is invalid. That is, as soon as we try to determine the effects of a change in the governing class's consumption behaviour certain non-linearities manifest themselves, and standard Leontief argumentation fails. The Tableau rather should be seen as a table in which each coefficient is governed by its own rules and where legal and behavioral conventions play a significant role. So, in this sense, going back to the old manuscripts was absolutely necessary to interpret Phillips' table.

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Our work has gratefully been published.[1] As summer approached, the University (of Twente) picked up on our findings. Our communications office asked me to give a short summary: of why this very old piece of work (1758!) might still be interesting? I likened it to "my own little da Vinci code", after Dan Brown's million seller. We do indeed have here a cocktail of most interesting ingredients: a strange square of numbers, 3 x 3, featuring concepts and symbols that are no longer in use and an early deciphering technique that seems somehow to have gone awry. So, all in all, a nice little story. They put my summary on the University website. Subsequently the regional newspaper Tubantia (which is the Latinized form of Twente) picked it up, and gave it a heading (in Dutch,, see the illustration below): 'UT-Professor solves puzzling square'. The story even nearly hit the national press! Instead it succumbed to a discovery in energy physics.

UT-prof lost raadselachtig vierkant op

ENSCHEDE - Prof. dr. Bert Steenge van de Universiteit Twente en dr. Richard van den Berg van de Britse Kingston University hebben een beroemd economisch model uit de achttiende eeuw ontcijferd. Generaties wetenschappers, onder wie Karl Marx, concludeerden dat het 'Tableau Economique' (ook bekend als 'de zigzag') van econoom en arts François Quesnay niet klopte, maar Steenge en Van den Berg bewijzen nu het tegendeel.
De twee Nederlandse economen leveren het bewijs deze week op een conferentie in Istanboel en in het wetenschappelijke tijdschrift Journal of the History of Economic Thought.
Quesnay wilde aantonen dat Frankrijk, achterop raakte bij Engeland aan de hand van een door hemzelf ontworpen rekenschema, het Tableau économique. Het had een wonderlijke en volstrekt unieke vorm. „Het kwam neer op het inpassen van bepaalde getallen in een 3 x 3 vierkant met gegeven randtotalen, een soort magisch vierkant dus", zegt Steenge. „De conclusie dat de aanpak niet deugde, heeft mij altijd verbaasd", aldus Steenge. „Quesnay was een zorgvuldig onderzoeker en lijfarts van Madame de Pompadour."
Nadat eerst Karl Marx zijn tanden erop had stukgebeten, dook het vierkant weer op bij vraagstukken rond de efficiëntie van kapitalisme en communisme. Een onderzoeker van het vermaarde MIT-instituut in Boston concludeerde in 1955 dat het schema niet klopte. Steenge dook samen met de economisch historicus Richard van den Berg in de oude teksten. „We ontdekten toen dat alle interpretatoren een bepaalde passage niet goed hadden gelezen. Voor mij betekende dit dat ik met die kennis de oude getallen kon reproduceren in termen van hedendaagse methoden. De conclusie was duidelijk: de oude Franse meester van meer dan twee eeuwen terug had het bij het rechte eind."

[1] Albert E. Steenge and Richard van den Berg, Transcribing the Tableau Économique: Input-Output Analysis à la Quesnay, Journal of the History of Economic Thought, Vol. 29, pp. 331-358.

So, perhaps this shows that studying old puzzles can be quite rewarding. Its relevance for today's economics? Well, in my view, the kind of economics that the Tableau proposes is rather close to Michael Porter's economics focused on regional clusters, but that's another story. From an I-O methods point of view, I think we should look on it as suggesting a kind of "non-multiplier" impact analysis, but that too is another story for another day. It belongs again, I'm afraid, to the set of somewhat less spectacular "technicalities".

Bert Steenge, University of Twente, the Netherlands

Sir R. Stone Prize Winner 2007

Evaluating sustainability of household consumption – Using DEA to assess environmental performance.- METTE WIER, LINE BLOCK CHRISTOFFERSEN, TRINE S. JENSEN, OLE G. PEDERSEN, HANS KEIDING & JESPER MUNKSGAARD

We assess environmental performance across product types and across household types in order to evaluate environmental pressure from human activities. To so do, we combine family budget statistics, input-output tables, energy and material flow matrices, various types of emissions and environmental effects indices for various effect types (e.g. a global warming potential index, an ozone depletion potential index, etc). Subsequently, using DEA (Data Envelopment Analysis), we use these weighted environmental effects indices to form one environmental performance score for each family type and product type. We find that the environmental performance of each family type changes considerably across environmental effect types. The analysis of the overall environmental performance scores shows that families living in urban flats, especially the young and elderly families, have the most environmentally friendly consumption pattern.

Middle income families living in houses have the least environmentally friendly consumer basket, and these families constitute a high share of all families in Denmark.

Leontief Prize Winner 2007

The Economic and Environmental Consequences of Automobile Lifetime Extension and Fuel Economy Improvement: Japan's Case SHIGEMI KAGAWA, YUKI KUDOH, KEISUKE NANSAI & TOMOHIRO TASAKI

The present paper develops a structural decomposition analysis with cumulative product lifetime distributions to estimate the effects of both product lifetime shifts and energy efficiency changes on the embodied energy consumptions. The empirical analysis, focuses on automobile use (ordinary passenger vehicles, small passenger vehicles, and light passenger vehicles) in Japan during the period 1990–2000. It reveals that the lifetime extension of existing old vehicles during the study period was more beneficial to the environment than purchasing new passenger vehicles with a relatively high fuel economy, because the lifetime extension empirically contributed to reducing the embodied energy consumption at the production and end-use stages. We also found that the energy-saving impact of a one-year lifetime extension was approximately 1.3 times larger than that of the most significant technological improvement in the electric power generation sector.

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In the next ESR issue

Economic Systems Research

Journal of the International Input-Output Association

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Erik Dietzenbacher. Editor

PAPERS

Shigemi Kagawa, Yuki Kudoh, Keisuke Nansai & Tomohiro Tasaki. The Economic and Environmental Consequences of Automobile Lifetime Extension and Fuel Economy Improvement: Japan's Case

Joost R. Santos, Kash Barker & Paul J. Zelinke IV. Sequential Decision-making in Interdependent Sectors with Multiobjective Inoperability Decision Trees

Antonio Morillas & Bárbara Díaz. Key Sectors, Industrial Clustering and Multivariate Outliers

Miguel Ángel Tarancón, Fernando Callejas, Erik Dietzenbacher & Michael L. Lahr. A Revision of the Tolerable Limits Approach: Searching for the Important Coefficients

Paul de Boer. Additive Structural Decomposition Analysis and Index Number Theory: an Empirical Application of the Montgomery Decomposition

Wenfeng Huang, Shintaro Kobayashi & Hajime Tanji. Updating an Input-Output Matrix with Sign-preservation: Some Improved Objective Functions and their Solutions

BOOK REVIEW

Michael L. Lahr. Nobuhiro Okamoto & Takeo Ihara (Eds). Spatial Structure and Regional Development in China: An Interregional Input-Output Approach

IN MEMORIAM

Antonio Pulido, Julián Pérez, Milagros Dones, José M. Rueda-Cantuche & Michael L. Lahr. Obituary: Emilio Fontela Remembered

Highlights in journals

Dietzenbacher, E & K. Mukhopadhyay, Testing the pollution haven hypothesis: Towards a green Leontief paradox? *Environment and Resource Economics*, April 2007, 36(4) pp. 427-449.

Using input–output analysis, we examine whether India can be regarded as a pollution haven. We calculate the extra CO_2, SO_2 and NO_x emissions induced by 1 billion rupees of additional exports. This is compared with the reduction of Indian pollution caused by an import increase of equal size. In contrast to what the pollution haven hypothesis states for developing countries, we find that India considerably gains from extra trade. Comparing 1996/1997 with 1991/1992, the gains have only increased, indicating that India has moved further away from being a pollution haven. The outcome is robust to changes in the underlying assumptions.

Peter B. Dixon, Maureen T. Rimmer & Marinos E. Tsigas, Regionalising results from a detailed CGE model: macro, industry and state effects of the U.S. of removing major tariffs and quotas. *Papers in Regional Science*, 66/1, March 2007, pp. 31-55.

This article describes a top-down method for regionalising the results from a 500- sector detailed national CGE model for the U.S. The output effects of removing import barriers would be negligible, except for sugar, butter and several textile products. State employment changes range between -0.5% and +0.2%.

Erik Dietzenbacher, Olaf J. de Groot & Bart Los, Consumption growth accounting. *Review of Income and Wealth*, 53/3, September 2007, pp. 422-439.

The methodology in this paper combines an input–output structural decomposition approach with the supply-side perspective of mainstream growth accounting. In explaining the intertemporal change in consumption per worker, three sets of effects are distinguished. First, contributions due to several types of technological changes are considered. Second, effects caused by changes in international trade are discerned. Third, composition effects that reflect structural shifts in demand (including changes in tastes) are quantified. As an empirical illustration, we analyze the developments in the U.K. between 1979 and 1990.

Reinhard Madlener & Martin Koller, Economic and CO_2 mitigation impacts of promoting biomass heating systems: An input–output study for Vorarlberg, Austria. *Energy Policy*, 35/12, December 2007, pp. 6021-6035.

This paper reports on an empirical investigation about the economic and CO_2 mitigation impacts of bioenergy promotion in the Austrian federal province of Vorarlberg. We study domestic value-added, employment, and fiscal effects by means of a static input–output analysis.

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Highlights in journals *(Cont.)*

The bio-energy systems analyzed comprise biomass district heating, pellet heating, and automated wood chip heating systems, as well as logwood stoves and boilers, ceramic stoves, and buffer storage systems. The results indicate that gross economic effects are significant, regarding both investment and operation of the systems, and that the negative economic effects caused by the displacement of conventional decentralized heating systems might be in the order of 20–40%. Finally, CO_2 mitigation effects are substantial, contributing already in 2004 around 35% of the 2010 CO_2 mitigation target of the Land Vorarlberg for all renewable energy sources.

Thijs ten Raa & José M. Rueda-Cantuche, Stochastic analysis of input-output multipliers on the basis of use and make tables. *Review of Income and Wealth*, 53/2, June 2007, pp. 318-334.

Although technical coefficients are estimated on the basis of flow data (use and make matrices), they are rarely treated as random variables. If this is done, an error term is added to the coefficients, rather than derived from the distribution of the data. Even so, the calculation of multipliers, by means of the Leontief inverse, is difficult. Due to the nonlinearity of this operation, the multiplier estimates are biased. By going back to the flow data, this paper provides unbiased and consistent employment and output multipliers estimates for the Andalusian economy. Rectangular use and make matrices are accommodated and problems associated with the construction and estimation of technical coefficients and the Leontief inverse are circumvented

Thomas Hertel, David Hummels, Maros Ivanic & Roman Keeney, How confident can we be of CGE-based assessments of Free Trade Agreements? *Economic Modelling*, 24/4, July 2007, pp. 611-635.

Computable General Equilibrium models, widely used for the analysis of Free Trade Agreements, are often criticized for having poor econometric foundations. This paper improves the linkage between econometric estimates of key parameters and their usage in CGE analysis in order to better evaluate the likely outcome of a Free Trade Area of the Americas (FTAA).

Our econometric work focuses on estimation of a particular parameter, the elasticity of substitution among imports from different countries, which we show to be central to our evaluation of the normative impacts of the FTAA. We match the data in the econometric exercise to the policy experiment at hand, and employ both point estimates and the associated standard errors in our FTAA analysis which takes explicit account of the degree of uncertainty in the underlying parameters. In particular, we sample from the distribution of parameter values given by our econometric estimates in order to generate a distribution of model results, from which we can construct confidence intervals. We find that imports increase in all regions of the world as a result of the FTAA, and this outcome is robust to variation in the trade elasticities. Nine of the thirteen FTAA regions experience a welfare gain in which we are more than 95% confident. We conclude that there is great potential for combining econometric work with CGE-based policy analysis in order to produce a richer set of results that are likely to prove more satisfying to the sophisticated policy maker.

Ian Sue Wing, The synthesis of bottom-up and top-down approaches to climate policy modeling: Electric power technology detail in a social accounting framework. *Energy Economics*, 30/2, March 2008, pp. 547-573.

"Hybrid" climate policy simulations have sought to bridge the gap between "bottom-up" engineering and "top-down" macroeconomic models by integrating the former's energy technology detail into the latter's macroeconomic framework. Construction of hybrid models is complicated by the need to numerically calibrate them to multiple, incommensurate sources of economic and engineering data. I develop a solution to this problem following Howitt's [Howitt, R.E., 1995. Positive Mathematical Programming, American Journal of Agricultural Economics 77: 329-342] positive mathematical programming approach. Using data for the U.S., I illustrate how the inputs to the electricity sector in a social accounting matrix may be allocated among discrete types of generation so as to be consistent with both technologies' input shares from engineering cost estimates, and the zero profit and market clearance conditions of the sector's macroeconomic production structure.

Highlights in books

Globalization and Regional Economic Modeling, R. Cooper, K. Donaghy & G. Hewings. Springer, New York (2007).

Globalization affects regional economies in a broad spectrum of aspects, from labor market conditions and development policies to climate change. This volume, written by an international set cast of eminent regional scientists, provides new tools for analyzing the enormous changes in regional economies due to globalization. It offers timely conceptual refinements for regional analysis. ISBN: 978-3-540-72443-8.

Handbook on Input-Output Economics for Industrial Ecology, S. Suh. Springer, New York (2007).

This handbook is an outcome of a joint working group shared by the Society of Environmental Toxicology and Chemistry (SETAC) and the International Society for Industrial Ecology (ISIE) launched in 2003 to accommodate this need. This book contains both theories and various applications in detail and embraces key principles and knowledge that are indispensable to utilize the rich assets of IOA for IE . ISBN: 978-1-4020-4083-2.

Input-Output Framework of Andalusia (Spain) 2000: Analysis of Results, A. Antúnez, F. Aroche, J. Aurioles, V. Brenes, J.A. Camacho, A. Cañada, R. Dios, E. Fernández, A.S. García, T. de Haro, B. Los, A. Morillas, M.J. Muñoz, T. ten Raa, C. Ramos, L. Robles, M. Rodríguez, J.M. Rueda-Cantuche, J. Sanjuán, M.A. Tarancón & A. Titos. Institute of Statistics of Andalusia, Seville (2007) [in Spanish].

This handbook provides a set of papers written by international experts on various aspects related to the Andalusian economy on the basis of the Input Output Framework of Andalusia for the year 2000. ISBN: 978-84-96659-40-7.

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Conferences & Workshops

The **2008 Gordon Research Conference (GRC) in Industrial Ecology** will be held at Colby-Sawyer College, New London, New Hampshire, USA, during August 17-22, 2008. The theme of this year's GRC is: Transforming the Use of Energy, Materials, Water, and Wastes. See the full program at www.grc.org/programs.aspx?year=2008&program=industeco.

Industrial Ecology is a highly interdisciplinary field that focuses on analysis and policy to promote sustainable production and consumption. Methodological approaches include innovative input-output modeling increasingly coupled with life-cycle assessment, material flow analysis, industrial symbiosis, design for environment, and integrated product policy. For more information see: www.is4ie.org.

GRCs are unique among research conferences for their quality of content, relatively small size (100-120), diversity of participants, cutting-edge science often still unpublished, and a schedule allowing for extended discussion and informal interactions. Background on Gordon Conferences can be found at http://www.grc.org/about.aspx. Celebrating their 75th anniversary, GRCs are among the most prestigious research conferences in science and technology. Application is now open: www.grc.org/application.aspx?id=9367.
Application deadline: July 27, 2008

Poster sessions are an important part of a GRC: Submit poster abstracts to Reid Lifset at reid.lifset@yale.edu . Proposal deadlines are in 2 rounds: March 30 and June 30.

Please contact me with any questions. I will be delighted to see you there!

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The **2008 Intermediate Input-Output Meeting** will focus especially on managing the environment. We perceive worldwide concern about crucial topics such as climate change; environmentally extended worldwide input-output modeling and related databases; physical methods and tools regarding environmental economic impacts; analyses of disasters; related economic, environmental and energy modeling at a global level; environmental effects on changes in life styles and consumption preferences; environment and trade-related issues; and the use of renewable or non-renewable natural resources, among others. Thus, since input-output techniques and input-output based models are playing an increasingly important role in addressing key questions regarding these topics, the discussions will undoubtedly contribute to a better knowledge and a better management of future environmental challenges for human society. Applications presented at meetings may be at a global, national, regional or local level and also in terms of commodities, industries and/or activities. The Local Organization Committee, wishes your fruitful and productive attendance at this international meeting hosted by the Pablo de Olavide University. We look forward to welcoming you all this summer.

Goal of the conference.- The goal of the conference is to promote and stimulate the worldwide exchange of ideas among economists and between them and government officials, engineers and managers with interests in inter-industry analysis and related methods. Thus, we invite thematic topics related to any aspect of input-output analysis and modeling related to environmental issues.

Mode of Participation.- Over the years organized sessions have proven to be among the best constructed and attended sessions at the International Input-Output Conferences. Thus, we strongly encourage proposals for organized sessions on particular themes. Thematic workshops and evening sessions/courses are also encouraged. Proposals for evening courses and thematic workshops should include a description of proposed contents, participants, and anticipated audience. Abstracts for individual papers may also be submitted. Every attempt will be made to fit accepted individual papers into thematic sessions. If there is no clear theme, sets of individual submissions will be grouped into sessions with common themes. In addition to plenary and parallel sessions of presentations we invite submission of posters for a poster session. A poster session is an excellent forum for the exchange of information and a good chance to communicate ideas, research, and programs personally and informally.

Call for Papers.- Please submit abstracts for papers not exceeding 500 words by January 15, 2008 (to tenRaa@UvT.nl), including the title and the abstract of the paper, names of all authors, and full postal and e-mail addresses of the corresponding authors. Abstract acceptance will be communicated before March 15, 2008. Full papers must be sent before May 15, 2008.

Call for Posters.- There will be a poster competition with a prize for the best poster. Please send your submission for a proposal for a poster presentation to Klaus Hubacek (hubacek@see.leeds.ac.uk) no later than May 15, 2008.

http://www.upo.es/econ/IIOMME08/index.php

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Modeling Workshop: Economic Impact Analysis of Climate Policies

Department of Applied Economic Analysis at the University of Las Palmas de G.C. February 11-15, 2008

Instructor: Prof. Dr. **Christoph Boehringer**

This year's Workshop on Economic Modeling provides an introduction into computable partial and general equilibrium models for the economic impact analysis of climate policies. The workshop motivates and develops step by step quantitative models that are used in the scientific and policy debate for the economic assessment of climate policy initiatives. Quantitative policy applications are based on partial equilibrium models of sectoral abatement options as well as computable general equilibrium models of regional economies. The course will follow model-based peer-reviewed publications in international journals to cover contemporary climate policy issues such as the design of the EU emissions trading scheme (EU ETS) or Post-Kyoto initiatives. The workshop will also cover the use of GTAP data when describing multi-region CGE modeling.

Material and teaching is in English. Upon final registration, part of the material will be sent out such that participants can prepare in advance. The practical approach of the workshop is assured by the fact that policy issues in environmental and energy policy will be implemented and traced through on the computer by means of hands-on sessions. In addition, there is the possibility to attend a one-day GAMS training course just in advance of the scientific workshop.

The workshop will consist of four segments: Day 1 (11-2-08): GAMS Optional Course; Day 2 (12-2-08): Partial Equilibrium Analysis; Day 3 (13-2-08): Computable General Equilibrium Analysis; Day 4 (14-2-08): General Equilibrium Analysis of Climate Policies (1); Day 5 (15-2-08): General Equilibrium Analysis of Climate Policies (2).

Enrolment is limited to 15 persons to assure efficient, close interaction. For further information please check: http://www.ulpgc.es/webs/wem/ or the courses section on: http://www.gams.de

Teaching IO

"The Elements of Input-Output Analysis" is now a Regional Research Institute Web Book of Regional Science!

Fron the Regional Research Institute at West Virginia University:

William H. Miernyk's 1965 timeless and classic introduction to input-analysis was the first exposure to the field for literally thousands of economists, regional scientists, and geographers. The book, which has been out of print for more than two decades, has been converted to Web Book format and can now be accessed at

http://www.rri.wvu.edu/WebBook/Miernykweb/new/

We hope that those of you who never had the pleasure of learning from this resource will find it useful, and that those of you who cut your IO teeth on the text will enjoy having access to the volume once again.

Note that the Regional Research Institute Web Book of Regional Science also has a text by **William Schaeffer** entitled "**Regional Impact Models**," which also has considerable content on input-output analysis:

http://www.rri.wvu.edu/WebBook/Schaffer/index.html

New "Regional and Interregional I-O Analysis" syllabus is now available at the University of Groningen !

Jan Oosterhaven and **Dirk Stelder** provides a new revised syllabus on regional and multirregional input-output analysis including location quotients and the construction of regional I-O tables, the Leontief quantity model, the basic interregional I-O model with two regions, the extension of the model with a consumption function and some applications on the use of the specific software IRIOS. It is downloadable at:

http://www.regroningen.nl/irios/irios.html

Job opportunities

2 Openings in the Department of Economics !!!

School of Humanities and Social Sciences, Rensselaer Polytechnic Institute, Troy, NY, USA

1. Head, Department of Economics

The Department of Economics seeks applications and nominations for the position of Department Head. Candidates should have an outstanding research and teaching record meriting the rank of tenured Full Professor at a leading research university, and they must have proven leadership and administrative abilities. The Department seeks to hire an economist in any field, who will build on its existing strengths in environmental and ecological economics and in the economics of technological change.

2. Associate or Assistant Professor

Q4 Energy Economics; Q5 Environmental Economics; AF Any field

The Department of Economics seeks to hire at the Assistant or Associate Professor level. Applicants in the fields of energy and environmental economics are especially welcome, but strong candidates in other fields are also invited to apply.

Rensselaer Polytechnic Institute, established in 1824, the oldest civilian institution in science and technology in the U.S., is an equal opportunity-affirmative action employer. Women and minorities are strongly encouraged to apply. Please send application materials to the address listed below. The review of applications and nominations will begin immediately and will continue until the positions are filled. CONTACT: **Professor James D, Adams**, Acting Department Head, Department of Economics, Sage Lab 3502, Rensselaer Polytechnic Institute, 110 8th Street, Troy, NY 12180-3590(e-mails, please, to: kaufmb@rpi.edu).

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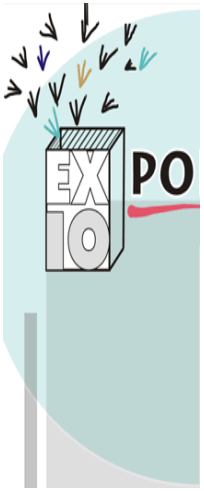
International projects

EXIOPOL is a project funded by the European Commission under the 6th framework programme, priority 6.3 Global Change and Ecosystems. The consortium comprises a large number of partners and covers a variety of relevant research expertise in the fields of environmental valuation and Environmentally Extended Input-Output assessment. Overall 38 universities and centres of research from Europe, China and India are involved. The project has taken off in March 2007 and will last up to March 2010.



The objectives of EXIOPOL are to: (1) Synthesise and develop further estimates of the external costs of key environmental impacts for Europe; (2) Set up an environmentally extended (EE) Input-Output (I-O) framework in which as many of these estimates as possible are included, allowing the estimation of environmental impacts and external costs of different economic sector activities, final consumption activities and resource consumption for countries in the EU;(3) Apply the results of the external cost estimates and EE I-O analysis for the analysis of policy questions of importance, as well as for the evaluation of the value and impact of past research on external costs on policy-making in the EU.

The core of the project is to support cost-effectiveness and cost-benefit analysis of technologies, policies, and standard setting, at the micro, macro and meso level. This requires the coverage of a broad range of impacts and assessment of external costs.

For further information:

http://www.feem-project.net/exiopol/index.php

Productivity in the European Union: A Comparative Industry Approach (EU KLEMS2003)

This project aims to create a database on measures of economic growth, productivity, employment creation, capital formation and technological change at the industry level for all European Union member states from 1970 onwards. This work will provide an important input to policy evaluation, in particular for the assessment of the goals concerning competitiveness and economic growth potential as established by the Lisbon and Barcelona summit goals. The database should facilitate the sustainable production of high quality statistics using the methodologies of national accounts and input-output analysis. The input measures will include various categories of capital, labor, energy, material and service inputs. Productivity measures will be developed, in particular with growth accounting techniques. Several measures on knowledge creation will also be constructed. Substantial methodological and data research on these measures will be carried out to improve international comparability. There will be ample attention for the development of a flexible database structure, and for the progressive implementation of the database in official statistics over the course of the project. The database will be used for analytical and policy-related purposes, in particular by studying the relationship between skill formation, technological progress and innovation on the one hand, and productivity, on the other. To facilitate this type of analysis a link will also be sought with existing micro (firm level) databases. The balance in academic, statistical and policy input in this project is realized by the participation of 15 organizations from across the EU, representing a mix of academic institutions and national economic policy research institutes and with the support from various statistical offices and the OECD.

For further information:

http://www.euklems.net/

and also at EUROSTAT:

http://epp.eurostat.ec.europa.eu/

(under the "Economy and Finance" headline)

Databases

New release: Benchmark Input-Output Accounts of the U.S. Economy, 2002

The Bureau of Economic Analysis has released its 2002 benchmark input-output (I-O) accounts. These are the latest in a series of accounts that provide the most detailed information available on the structure of the U.S. economy and its industries, and cover over 400 industries.

Benchmark I-O accounts are prepared at 5-year intervals and are based on detailed data from quinquennial economic censuses conducted by the Bureau of the Census. BEA also publishes annual I-O accounts that cover 65 industries; the most current available is 2006.

The I-O accounts – including the detailed once-every-5-years benchmark accounts and the less detailed annual updates – provide an extensive accounting of the production of goods and services by industry and commodity, which includes the goods and services purchased by each industry, the income earned in each industry, and the distribution of sales for each good and service to industries and final users -- consumers, businesses, governments, and foreigners.

These accounts are used to assess the effects of changes in final demand on the economy; they show the interdependencies among producers and consumers in the economy. Analysts and policy makers use the accounts to assess the impact, across industries and on consumers, of increases in energy costs, insurance costs, taxes or defense related expenditures by the Federal government. They also use the accounts to study specific events, such as the impact on air travel from the September 11 attacks. State and local government analysts use them through regional extensions of the I-O framework to assess the impact of military base closings or major new development projects. BEA and other statistical agencies use them to benchmark GDP and other key statistics.

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The 2002 benchmark accounts are the first I-O accounts to provide detailed information on electronic shopping, electronic auctions, Web search portals, Internet service providers and Internet publishing and broadcasting and they include summary and detailed data on the interactions between the internet industries and all other industries.

The 2002 benchmark I-O accounts are available interactively on BEA's Web site; go to www.bea.gov , and under "Industry," select "Benchmark Input-Output Accounts," click on "Interactive Tables: Input-Output." Data users can partition the I-O tables to create aggregate columns and rows to meet their analytical needs.

Further information at:

http://www.bea.gov/newsreleases/industry/io/ionewsrelease.htm

IDE-JETRO Institute of Developing Economies Japan External Trade Organization

Asian International Input-Output Table 2000

It consists of statistical time series tables and commodity tables produced on the basis of statistical data, including trade, production and population figures collected and organized by IDE on developing countries, and the results of statistical analysis based on evaluation and processing of this data.

It includes:
China
Indonesia
Korea
Malaysia
Philippines
Singapore
Taiwan
Thailand

http://www.ide.go.jp/English/Publish/Books/Sds/089.html

ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT OECD

The **OECD Input-Output tables (2006 edition Revision 1)** consist of matrices of inter-industrial transaction flows of goods and services (domestically produced and imported) in current prices, for 28 OECD countries (currently all OECD member countries except Iceland and Mexico) and 9 non-member countries (Argentina, Brazil, China, Chinese Taipei, India, Indonesia, Israel, Russia and South Africa), covering 1995 and 2000 or nearest years.

Input-Output tables describe the sale and purchase relationships between producers and consumers within an economy. They can be produced by illustrating flows between the sales and purchases (final and intermediate) of industry outputs or by illustrating the sales and purchases (final and intermediate) of product outputs . The OECD Input-Output database is presented on the former basis, reflecting in part the collection mechanisms for many other data sources such as research and development R&D expenditure data, employment statistics, pollution data, energy consumption, which are in the main collected by enterprise or by establishment, and thus according to industry classifications.

The latest set of OECD Input-Output tables (2006 edition Revision 1) consists of matrices of inter-industrial transaction flows of goods and services (domestically produced and imported) in current prices, for 28 OECD countries (currently all OECD member countries except Iceland and Mexico) and 9 non-member countries (Argentina, Brazil, China, Chinese Taipei, India, Indonesia, Israel, Russia and South Africa), covering 1995 and 2000 or nearest years. Through the use of a standard industry list based on ISIC Revision 3 , comparisons can be made across countries. Further information for each country and the estimation methodology is available in the document The OECD Input-Output Database edition 2006 - STI Working Paper 2006/8 . Further information at:

http://www.oecd.org/

Obituary

Emilio Fontela Montes
1938 – 2007

He made major contributions to input-output economics and the IIOA, having organized the 10th International Input-Output Conference in Seville in 1993. He received his Ph.D. in Economics in Geneva in 1962 and was for many years a Professor in National Accounts and Applied Econometrics at the University of Geneva (Switzerland) and the Universidad Autónoma de Madrid (Spain). He worked for the European Commission and other national and international research institutions. His wisdom and generosity will be sorely missed by his many friends and colleagues.

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