

INTERNATIONAL INPUT-OUTPUT ASSOCIATION

Welcome from the Editor



Dear IIOA member,

I am pleased to deliver to you the latest issue of the *International Input-Output Newsletter*. I thank all contributors and anyone else who sent us items.

This issue brings a Welcome from our new IIOA President, Mr. Satoshi Inomata.

There also information is about the next IIOA Conference in Glasgow, Scotland, Latest ESR articles, Highlights in Journals and books.

You can also find a Call for The 3rd International Conference on Economic Structures (ICES 2019), the 58th Annual Meeting of the Southern Regional Science Association, XXXVII International Congress of the Latin American Studies Association, 22nd Annual Conference on Global Economic Analysis, 26th APDR Congress, 59th ERSA Congress, and 8th Conference of SHAIO – Sociedad Hispanoamericana de Análisis Input-Output (Hispanic-American Input-Output Society).

I hope you enjoy it! Any feedback, comments or suggestions are greatly appreciated.

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In this issue

- **Welcome from the Editor.....1**
- **Welcome from the President.....2**
- **Next IIOA Conference.....3**
- **Published papers and books**
 - in IOA and related methods.....5**
 - **Latest ESR articles.....5**
 - **Highlights in journals.....14**
 - **Highlights in Books.....17**
 - **Others.....17**
- **Events.....18**
 - **Next courses.....18**
 - **Next conferences.....23**

Would you like to contribute to the IIOA newsletter?

Contact us newsletter@iioa.org



INTERNATIONAL INPUT-OUTPUT ASSOCIATION

Welcome from the President



Dear valued IIOA members,

It is my greatest honour, yet with an overwhelming feeling for responsibility, to announce my succession to the IIOA Presidency. What follows is a note

of my vision for how I can possibly contribute to the Association.

Develop a sustainable IO community

... this is my core focus.

Yes, over the past few years, the IIOA has been quite successful in increasing its membership, especially among younger researchers, perhaps driven by the recent surge in IO applications to selected academic fields. But making the growth sustainable is a different challenge. We need to strengthen our scientific base and raise academic standards/quality, along the three axes of the Association: annual conferences, the International School of Input-Output Analysis, and our journal *Economic Systems Research*, so as to continually attract researchers both within and outside of our community, whether

or not our association continues its growth boom.

I believe this is the right time to focus on this. We have new people flowing into the Association who are passionate to learn about the field, as well as "core" IO researchers who want to re-establish or shed new light on what they have been doing all along. I particularly believe that we should emphasise the International School of IO Analysis in this respect. I want to think hard about the sustainability of our community (and the input-output discipline in general) hand in hand with our Council, Fellows, and all passionate members of the Association. I will dedicate myself towards that end.

So, how can we approach this? If we want to develop something new, we need **robust institutions and operational systems**. I believe we have them on the form of our Statutes, By-laws, financial accounts, IT systems, etc. We all owe thanks to the continuous efforts of our Secretary Oliver Fritz and Treasurer Christof Paparella for maintaining and upgrading them. Accordingly, in tight coordination with these other two members of the Council, I will direct much of my energy monitoring this system and assure that it is working well and implemented efficiently. I will assure that all key points are updated and upgraded as needed.

I will also focus on **communication** with our members. Please be patient. I am not an English native-speaker, so my mode of communication may not be super-efficient. Still, I value different opinions and different perspectives. Moreover, I will be pleased to explain my views when and where required. In this light, the Council's accountability to the IIOA members is my main concern. Over time, various procedures within the Council have become ever-more transparent, and I intend to maintain this progress. I do not want members to suspect that the Council makes decisions behind closed doors to benefit a few, especially since the opposite tends to be closer to the truth. Only as long as Council decisions remain transparent and accountable can members trust the organization as a whole (and love it, I hope... !)

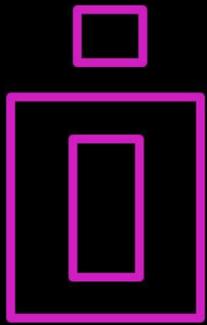
Above all, I want to continue to enjoy being a member of the IIOA along with you. Work without fun is ...well...just work. I believe that the current Association is very good at making members' commitment full of fun and pleasure. So, let's keep doing so !!

Regards,

Satoshi Inomata

The President,

International Input-Output Association



Newsletter
Number 39, February 2019

INTERNATIONAL INPUT-OUTPUT ASSOCIATION

Next IIOA Conference





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Important Dates

NOTE: all the following dates refer to a deadline of 23:59 hours Central European Time.

Announcement of 2019 IIOA Conference	28th June 2018
Continuous marketing plan, website launched, social media, etc.	1 August 2018
Submission of organised session proposals open	1 October 2018
Abstract submission through COPASS begins	3 December 2018
Last date for submission of organised session proposals	28 December 2018
Last date for submission for abstracts	28 January 2019
Last date for submission for travel grants	11 February 2019
Conference registration opens	7 March 2019
Hotel registration opens	7 March 2019
Final date for notification of acceptance abstract	11 March 2019
Last date for submission for Leontief Prize	1 April 2019
Last date for applying for Development Programme	1 April 2019
Early registration ends	1 May 2019
Last date for submission of full papers	1 May 2019
On-line registration ends	1 June 2019
27th IIOA Conference Opens	30 June – 5 July 2019
IIOA Council Meeting	30 June 2019
International School of Input-Output Analysis	1 July 2019

 Check [here](#) for updates!

Check the links below for more information about the IIOA Conference in Glasgow:

[The Conference](#)

[Conference Vision](#)

[Conference Location](#)

[Conference Programme](#)

[Keynote Speakers](#)

[Panel Session Speakers](#)

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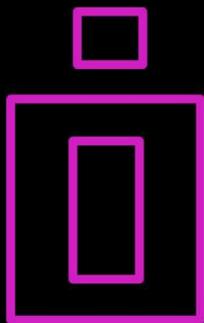
[Scientific Programme Committee](#)

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Published papers and books in IOA and related methods

Latest ESR articles

[Economic Systems Research](#)

[Journal of the IIOA](#)

[Volume 31, Issue 1, 2019](#)



Hongsakhone, S., and Ichihashi, M. [Measurement of reciprocity in a village through social networks.](#) *Economic Systems Research*, 31(1): 1-20.

This paper examines measuring of interdependency among households through their transactions by using information of individual villagers in a disadvantaged area in a developing country. To obtain the information, we created a village input-output table (VIOT) from household survey data conducted in a rural village in Lao PDR in 2015 and 2016. Because each household in the village is not only a producer but also a consumer who is trading products and consuming them, the VIOT is a simple but useful tool to know the economic transactions among villagers. The main findings are that four higher-income families, which mainly trade rice very frequently, are playing key roles in the village economy, and the

interdependency among higher-income households is stronger than among lower/middle-income households. Additionally, this method can be used to form an economic policy such as poverty reduction because of informing households playing a key role in the village.

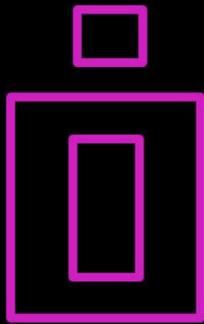
Kiula, O., Markandya, A. and Ščasný, M. [Taxing air pollutants and carbon individually or jointly: results from a CGE model enriched by an emission abatement sector.](#) *Economic Systems Research*, 31(1): 21-43.

We analyse the separate and collective impacts of emissions taxation to understand the internalisation effects of externalities. The analysis is carried out using a static computable general equilibrium model, with unemployment, bottom-up abatement technologies represented by a step function, and detailed emission coefficients. Environmental and health external costs are quantified using the ExternE's Impact Pathway Approach. Emissions, as a result of environmental taxation, fall through and increased end of pipe abatement activity. The analysis shows that a full internalisation of environmental externalities can result in modest overall economic and environmental welfare gains. There are, however, differences in terms of employment and output, depending on what combination of taxes are

applied, which sectors are covered, and how fiscal revenues are redistributed. Air quality benefits range from €35–75 per ton of CO₂ abated. Total environmental benefits always exceed GDP loss and the associated welfare loss.

Kim, K., and Hewings, G. [Bayesian estimation of labor demand by age: theoretical consistency and an application to an input-output model.](#) *Economic Systems Research*, 31(1): 44-69.

Extended input-output models require careful estimation of disaggregated consumption by households and comparable sources of labor income by sector. The latter components most often have to be estimated. The primary focus of this paper is to produce labor demand disaggregated by workers' age. The results are evaluated through considerations of its consistency with a static labor demand model restricted with theoretical requirements. A Bayesian approach is used for more straightforward imposition of regularity conditions. The Bayesian model confirms elastic labor demand for youth workers, which is consistent with what past studies find. Additionally, to explore the effects of changes in age structure on a regional economy, the estimated age-group-specific labor demand model is integrated into a regional input-output model. The integrated model suggests that



INTERNATIONAL INPUT-OUTPUT ASSOCIATION

ceteris paribus ageing population contributes to lowering aggregate economic multipliers due to the rapidly growing number of elderly workers who earn less than younger workers.

Pereda, P., Lucchesi, A., Garcia, C., and Palialol, B. [Neutral carbon tax and environmental targets in Brazil.](#) *Economic Systems Research*, 31(1): 70-91.

We evaluate the effects of a carbon tax in the Brazilian economy using an input-output framework. First, we consider the impacts of a carbon tax of US\$ 10 and US\$ 50/metric ton of CO₂ equivalent. As usual, the adoption of the carbon tax generates adverse effects on GDP, wages and jobs in the short term, but reduces emissions and generates new government revenues, especially in the case of the greater tax. Second, we consider a broader tax system reform. In this reform, we replace distortionary taxes by a tax on value added. To compensate for the loss of government revenue, we assume a carbon tax with equivalent revenue. We find that the net effect is a GDP increase of 0.47%, the creation of 533 thousand jobs and reduction of 1.6 million tons of CO₂ emissions. Both scenarios exempt exports and levy imports to correct adverse effects on the country's competitiveness.

Severini, F., Felici, F., Ferracuti, N., Pretaroli, R., and Soggi, C. [Gender policy and female employment: a CGE model for Italy.](#) *Economic Systems Research*, 31(1): 92-113.

The gender integration in all areas of policy choices and at all stages of the decision-making process is strongly recommended by the European Union and represents an achievement that the Member States should accomplish when implementing policy measures. In a country like Italy, where the level of female labour participation is among the lowest in Europe, policy maker decisions should encourage and stimulate the demand for female labour without neglecting the global employment rate and income growth. The multisectoral analysis offers the possibility to bridge gender disaggregation within income formation and distribution from the production phase to the demand formation. In this perspective, this paper develops a gender-aware CGE model based on the gender-aware SAM for the Italian economy to evaluate the impact of different fiscal policies aimed to reduce female labour cost and trigger woman hiring in those sectors with high gender disparity.

Hawkins, J. and Hunt, J.D. [Development of environmentally extended social accounting matrices for policy analysis in Alberta.](#) *Economic Systems Research*, 31(1): 114-131.

This paper outlines the development of inputs to an integrated land use and transportation model based on a series of environmentally extended social accounting matrices (SAMs) for the Canadian province of Alberta. A novel form of industry disaggregation is employed, based on aggregate iterative proportion and a unique formulation of location quotients. Social accounts are extended via the inclusion of detailed household consumption broken down by income quintiles. The SAMs are developed from *supply-use matrices*. Physical flow accounts are framed as derived demands, acting as necessary inputs to the production of downstream goods and services. Applications to regional economic modeling are considered, as planning authorities increasingly seek to model the environmental impacts of policy. The SAMs are then applied to the assessment of two technology change scenarios: a shift in the provincial electricity generation mix and a transition to a fully electric private automobile fleet.



INTERNATIONAL INPUT-OUTPUT ASSOCIATION

ten Raa, T. [The use–make framework and the derivation of functional forms in production theory.](#) *Economic Systems Research*, 31(1): 132–141.

The use–make framework is employed to explain functional forms in production theory, including Cobb–Douglas and Leontief. Productivity and efficiency are interrelated by augmenting the framework with a linear program that determines the frontier output.



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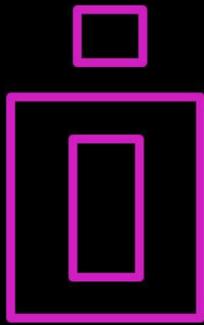


Zhang, N. and Zhao, X. [Measuring global flow of funds: focus on China, Japan, and the United States.](#) *Economic Systems Research*.

This paper aims to establish a new statistical framework for measuring global flow of funds (GFF) based on its inherent mechanisms. It advances a previous theoretical discussion and develops a practical operational statistical matrix. Based on theoretical and practical possibilities the paper gets existing data from the International Investment Position, the Coordinated Direct Investment Survey, the Coordinated Portfolio Investment Survey, and International Banking Statistics are integrated for measuring GFF. The main outcome is a prototype GFF matrix that includes stock data geographically disaggregated by country/region and selected financial instruments. The paper presented GFF Matrix compiled with the pattern of 'Country vis-à-vis Country' matrix, and through using the GFF matrix to analyze the basic status, mutual relationship and existing problems between China, Japan, and the United States in the external financial positions.

Freire-González, J. and Ho, M. S. [Carbon taxes and the double dividend hypothesis in a recursive-dynamic CGE model for Spain.](#) *Economic Systems Research*.

A carbon tax is potentially a policy that can reduce CO₂ emissions and mitigate climate risks, at lowest economy-wide costs. We develop a dynamic CGE model for Spain to assess the economic and environmental effects of a carbon tax, and test the double dividend (DD) hypothesis. We simulate the impact of three carbon taxes: €10, €20 and €30 per ton of CO₂. For each tax, four 'revenue recycling' scenarios are examined: a reduction of taxes on capital, on labor, on value-added tax, and a scenario in which revenues are not recycled. We find a DD for taxes of €10/ton and lower, within five to seven years of implementation. We estimate an annual CO₂ emissions reduction of around 10% with this tax. Under some circumstances, the DD can be achieved for a tax of €20/ton. In any case, recycling revenues to cut pre-existing taxes reduces costs of imposing carbon taxes.



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Dietzenbacher, E., van Burken, B. and Kondo, Y. [Hypothetical extractions from a global perspective.](#) *Economic Systems Research.*

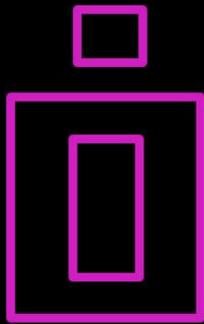
The hypothetical extraction method (HEM) has been widely used to measure interindustry linkages and the importance of industries. HEM considers the hypothetical situation in which a certain industry is no longer operational. HEM was developed for national economies, using national input-output tables. When performing HEM, it is assumed (often implicitly) that the input requirements that were originally provided by the extracted industry are met by additional imports in the post-extraction situation. Applying HEM to global multiregional input-output tables then causes serious problems. It is no longer sufficient to assume that the required inputs are imported. Instead, it is necessary to indicate explicitly how much is imported from each origin to replace the original inputs. Our adaptation of HEM is the global extraction method (GEM). As an illustration, GEM is applied to the extraction of the motor vehicle industry in China, the US, and Germany, using the 2014 WIOD input-output table.

Philippidi, G., Bartelings, H., Helming, J., M'barek, R., Smeets, E. and van Meijl, H. [Levelling the playing field for EU biomass usage.](#) *Economic Systems Research.*

The threats of climate change, food security, resource depletion and energy security are driving society towards a sustainable low-carbon future. Within this paradigm, biomass plays an invaluable role in meeting the food, feed, energy and material needs of future generations. Current EU thinking advocates biomass for high-value materials, which is not aligned with EU public policy support for 'lower value' bioenergy applications. 'High-technology' and 'no bioenergy mandate' pathways explore market conditions that generate a more equitable distribution between competing biomass conversion technologies and competing biomass and fossil technologies. In achieving greater equity, these pathways ease biomass market tensions; enhance EU food security; improve EU biobased trade balances; accelerate biomaterial sectors' output performance and favour macroeconomic growth. Moreover, an additional 80% increase in the oil price signals a tipping point in favour of first generation biofuels, whilst simultaneously boosting output in advanced material conversion technologies even more than the high-technology pathway.

Torres-González, L. D. and Yang, J. [The persistent statistical structure of the US input-output coefficient matrices: 1963–2007.](#) *Economic Systems Research.*

The paper finds evidence for the existence of a statistical structure in the US input-output coefficient (A) matrices for 1963–2007 and characterizes the identified statistical regularities. For various aspects of A matrices, we find smooth and unimodal empirical distributions (EDs) with a remarkable stability in their functional form for most of the samples. The EDs of all entries, row sums, and the entries of the (left- and right-hand) Perron–Frobenius eigenvectors are well described by fat-tailed distributions, while the EDs of column sums and eigenvalues' moduli are explained by the normal and the beta distribution. The paper provides several economic interpretations of these statistical results as well as some implications and potential uses for structural and stochastic input-output analysis.



INTERNATIONAL INPUT-OUTPUT ASSOCIATION

Steenge, A., Bouwmeester, M. and Incera, A. C. [Rents, resources, and multiple technologies; Ricardian mechanisms in input-output modelling.](#) *Economic Systems Research*.

To allow for 'multiple technologies' to produce a homogeneous output in input-output models, Duchin and Levine [(2011) [Sectors may use Multiple Technologies Simultaneously: The Rectangular Choice-of-technology Model with Binding Factor Constraints](#), *Economic Systems Research*, 23(3), 281-302] propose an optimization model constrained by primary resources. We show that the Duchin-Levine model contains two different mechanisms by which multiple technologies can arise. If a factor in short supply is shared by the original and the newly entering technology, the output of the original, lower-cost technology will be reduced to make room for the higher-cost technology which is less intensive in that factor. In contrast, if the factor in short supply is technology-specific, a higher-cost technology supplements the original lowest-cost one, which stays fully active. Either mechanism implies a mechanism-specific set of prices, quantities and rents. We relate these results to classical views on comparative advantage, fixed output levels and the origin of rents.

Valderas-Jaramillo, J. M., Rueda-Cantuche, J. M., Olmedo, E. and Beutel, J. [Projecting supply and use tables: new variants and fair.](#) *Economic Systems Research*.

We have introduced in this paper new variants of two methods for projecting Supply and Use Tables that are based on a distance minimisation approach (SUT-RAS) and the Leontief model (SUT-EURO). We have also compared them under similar and comparable exogenous information, i.e.: with and without exogenous industry output, and with explicit consideration of taxes less subsidies on products. We have conducted an empirical assessment of all of these methods against a set of annual tables between 2000 and 2005 for Austria, Belgium, Spain and Italy. From the empirical assessment, we obtained three main conclusions: (a) the use of extra information (i.e. industry output) generally improves projected estimates in both methods; (b) whenever industry output is available, the SUT-RAS method should be used and otherwise the SUT-EURO should be used instead; and (c) the total industry output is best estimated by the SUT-EURO method when this is not available.

Cordier, M., Poitelon, T. and Hecq, W. [The shared environmental responsibility principle: new developments applied to the case of marine ecosystems.](#) *Economic Systems Research*.

Estuaries provide advantageous sites for both harbors and fish habitats. In many countries, harbor expansion in estuaries contributed to the decline of fish populations with impacts at the global scale. Restoring these habitats is important to prevent a global biodiversity crisis but is costly and potentially unaffordable for polluters under the Polluter Pays Principle. Such affordability issues prompt decision-makers to reduce environmental targets of restoration programs. Harbor infrastructures destroy fish habitats but generate benefits for society and contribute to the public interest, raising some questions on who is responsible for environmental degradations and who can afford environmental restoration costs? One way to allocate restoration costs is to analyze the amount of harbor services consumed by economic sectors. This paper addresses these questions by computing burden sharing scenarios with an input-output matrix. These scenarios are simulated under the shared responsibility principle to distribute restoration costs among stakeholders in the Seine estuary, France.



INTERNATIONAL INPUT-OUTPUT ASSOCIATION

Cai M. and Rueda-Cantucho, J. M. [Bridging macroeconomic data between statistical classifications: the count-seed RAS approach.](#) *Economic Systems Research.*

In applications, it is often necessary to link heavily aggregated macroeconomic datasets adhering to different statistical classifications. We propose a simple data reclassification procedure for those cases in which a bridge matrix grounded in microdata is not available. The essential requirement of our approach, which we refer to as count-seed RAS, is that there exists a time period or a geographical entity similar to the one of interest for which the relevant economic variable is observed according to both classifications. From this information, a bridge matrix is constructed using bi-proportional methods to rescale a seed matrix based on a qualitative correspondence table from official sources. We test the procedure in two case studies and by Monte Carlo methods. We find that, in terms of reclassification accuracy, it performs noticeably better than other expeditious methods. The analytical framework underlying our approach may prove a useful way of conceptualizing data reclassification problems.

Mary, S., Phimister, E., Robert, D. and Santini, F. [A Monte Carlo filtering application for systematic sensitivity analysis of computable general equilibrium results.](#) *Economic Systems Research.*

Parameter uncertainty has fuelled criticisms on the robustness of results from computable general equilibrium models. This has led to the development of alternative sensitivity analysis approaches. Researchers have used Monte Carlo analysis for systematic sensitivity analysis because of its flexibility. But Monte Carlo analysis may yield biased simulation results. Gaussian quadratures have also been widely applied, although they can be difficult to apply in practice. This paper applies an alternative approach to systematic sensitivity analysis, Monte Carlo filtering and examines how its results compare to both Monte Carlo and Gaussian quadrature approaches. It does so via an application to rural development policies in Aberdeenshire, Scotland. We find that Monte Carlo filtering outperforms the conventional Monte Carlo approach and is a viable alternative when a Gaussian quadrature approach cannot be applied or is too complex to implement.

Okuyama, Y. and Yu, K. D. [Return of the inoperability.](#) *Economic Systems Research.*

There has been unrest in the research community investigating the inoperability of an economic system under disaster situations. The inoperability input-output model (IIM), which is very popular in the risk management field, has become a center of argument, particularly from the input-output researchers, that IIM is a straightforward application of the standard Leontief input-output model. This paper revisits the concept of inoperability, rather than IIM, and proposes its new role in disaster impact analysis using a conventional tool, i.e. the RAS method, for illustrating how the inoperability of an economic system in the aftermath of disaster can be evaluated. The proposed framework is employed to examine the inoperability of industries resulting from the 1995 Kobe earthquake. The findings of the analysis reveal the usefulness of inoperability concept that can even incorporate resilience (gained operability) using the proposed framework of this paper.



INTERNATIONAL INPUT-OUTPUT ASSOCIATION

Piñero, P., Bruckner, M., Wieland, H., Pongrácz, E. and Giljum, S. [The raw material basis of global value chains: allocating environmental responsibility based on value generation.](#) *Economic Systems Research.*

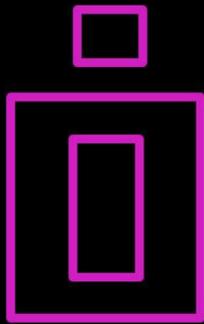
A new approach to allocate environmental responsibility, the 'value added-based responsibility' allocation, is presented in this article. This metric allocates total environmental pressures occurring along an international supply chain to the participating sectors and countries according to the share of value added they generate within that specific supply chain. We show that – due to their position in global value chains – certain sectors (e.g. services) and countries (e.g. Germany) receive significantly greater responsibility compared to other allocation approaches. This adds a new perspective to the discussions concerning a fair distribution of mitigation costs among nations, companies and consumers.

Chen, Q., Zhu, K., Liu, P., Chen, X., Tian, K., Yang, L. and Yang, C. [Distinguishing China's processing trade in the world input-output table and quantifying its effects.](#) *Economic Systems Research.*

Distinguishing processing trade is crucial to national input-output table-based research on China's international trade. This paper further investigates the importance of distinguishing China's processing trade in multicountry input-output table-based studies. We focus on the bias in China's bilateral trade in value added caused by China's undistinguished processing trade. We construct a product-by-product world input-output table capturing China's processing trade based on the World Input-Output Database. Empirical studies show that, if China's processing trade is undistinguished, the profile of China's bilateral trade in value added would be seriously distorted; China's bilateral net trade in value added with some economies, such as Japan, Korea and Taiwan, would be significantly underestimated, while it would be significantly overestimated for some other economies, such as the United States. Distinguishing processing trade in multicountry input-output tables is also crucial when China's bilateral trade in value added is considered.

Schumacher, D. [The integration of international financial markets: an attempt to quantify contagion in an input-output-type analysis.](#) *Economic Systems Research.*

The increasing integration of international financial markets means that credit defaults in one country have to be covered by creditors in other countries. If the principle of creditor liability were applied systematically, the financial losses incurred by the financial institution that provided the credit and is thus directly affected by the default would be 'passed on' through its domestic and foreign shareholders and debt holders, as well as their creditors, to the original savers. In this paper, this contagion effect will be estimated by taking international capital linkages into account. Analogously to an input-output analysis of inter-industry linkages, savings used for investments in one country are traced back to the countries from which the funds originated. This also reveals the important role of international financial centers, which essentially serve as distributors of investment risks, while the financial losses are ultimately borne by larger countries with higher levels of savings.



INTERNATIONAL INPUT-OUTPUT ASSOCIATION

Guevara, Z., Molina-Pérez, E., García, E. X. M. and Pérez-Cirera, V. [Energy and CO2 emission relationships in the NAFTA trading bloc: a multi-regional multi-factor energy input-output approach](#). *Economic Systems Research*.

The North-America Free Trade Agreement (NAFTA) has brought together the economies of Canada, Mexico, and the US into forming one of the largest trading blocs worldwide (within the top CO₂ emitters). However, the current global protectionist discourse threatens the agreement. This paper analyzes the energy and energy-related CO₂ emission relationships between NAFTA countries in 2014 to gain insights into the climate change implications of current integration and the possible cancelation of the agreement. The analysis is performed with a multi-regional version of the multi-factor energy input-output model. The results show that NAFTA has not built a single integrated energy system, though it has helped reduce energy-related CO₂ emissions. Moreover, if NAFTA is not revoked, further integration would depend on the capacity of the Mexican energy sector to converge to the performance of its trade partners' energy sectors. Conversely, a broken deal would induce negative environmental externalities.

Gurgul, H. and Lach, L. [Tracing VARDI coefficients: a proposal](#). *Economic Systems Research*.

We propose a new approach for tracing the so-called 'value-added-(re)distribution-important coefficients' (in short the VARDI coefficients) in a world input-output model. From the perspective of a selected group of economies, VARDI coefficients may be defined as those elements in world input-output matrix in the case of which a small change in their levels leads to the maximization of a share of this group of economies in value added in global value chains. Due to the rapid development of the World Input Output Database, this approach may be easily applied in empirical research to different groups of countries and sectors in world IO models. In an illustrative empirical case study, we use the new approach in order to answer a question regarding what the main directions of the future macroeconomic policy of the U.S. could be in order to ensure the maximization of the country's share in global value added.

Wei, D., Chen, Z., and Rose, A. [Estimating economic impacts of the US-South Korea free trade agreement](#). *Economic Systems Research*.

We analyze the economic impacts of the United States-South Korea Free Trade Agreement by applying the Global Trade Analysis Project (GTAP) computable general equilibrium model to highly disaggregated commodity flow data. The analysis calculates the impacts in terms of welfare effects, national economic indicators (such as GDP), and business performance metrics (such as sales revenue), which can be used by a variety of decision-makers. Our results suggest several trade-offs among these measures. Positive welfare gains between the US and South Korea are about the same in absolute terms, but favor the latter in relative terms, and very heavily so for GDP gains. Moreover, the US is projected to incur a loss of gross output (sales revenue) in several major manufacturing sectors that are heavily concentrated in geographic areas that have been promised a return of jobs by the Trump Administration.



INTERNATIONAL INPUT-OUTPUT ASSOCIATION

Kanemoto, K., Hanaka, T., Kagawa, S. and Nansai K. [Industrial clusters with substantial carbon-reduction potential.](#) *Economic Systems Research.*

To successfully reduce environmental emissions, companies need to expand the scope of their emissions accounting to include entire supply chains. A clustering approach has been used to find emission-intensive industry clusters. However, this approach did not include entire direct and indirect supply chains when forming high emission industry clusters. We propose a new method based on a modified normalized cut function with Leontief's input-output model and basic clustering algorithms to find industry clusters with high levels of embodied within-cluster emissions that are well separated in the supply chain network. We use this method to identify 58 carbon-intensive clusters of Japanese industries and visualize the within-cluster supply chains in terms of embodied carbon flows. We recommend that companies collaborate within clusters to reduce environmental emissions. Our results provide new insights on where to target emissions reduction actions and technology development within industrial supply chains.

Lin, C. and Nakamura, S. [Approaches to solving China's marine plastic pollution and CO₂ emission problems.](#) *Economic Systems Research.*

Global contamination of the oceans by waste plastics is of increasing concern. Besides being the largest emitter of CO₂ in the world, China is suspected of being the largest contributor to marine plastic waste pollution. Responsible for the latter is the still inadequate management of waste in China, a significant improvement of which is necessary for addressing the issue of marine plastic pollution. Since plastics are hydrocarbons, submitting them to appropriate waste treatment/recycling technologies could contribute to mitigating the emission of CO₂, indicating the possibility of addressing the two environmental issues simultaneously. Based on the combined use of waste input-output and linear programming, we investigated options for mitigating CO₂ emissions under consideration of alternative waste treatment/recycling processes applied to waste plastics of China. It was found that of the nine processes considered, four could result in a net reduction in the emission: a win-win situation.

Monsalve, F., Zafrilla, J., Cadarso, M. and García-Alaminos, A. [Is the emperor wearing new clothes? A social assessment of the European Union 2007–2013 financial framework.](#) *Economic Systems Research.*

Over the years, European leaders have proudly waved a social flag as one of the European Union's (EU) constituent and differentiating elements. This commitment is assessed here through the social footprint of the European 2007–2013 multiannual financial framework among the EU countries and, worldwide, using an extended multiregional input-output model. The focus is on the quantity and the quality of income and jobs generated. We find that well-known differences among its northern, southern and eastern regions threaten the EU's intentions for high social standards, enabling first- and second-class winners. Core EU countries account for the most of the Funds and, thus, most of the positive economic and social impacts, mainly through spillovers from peripheral regions. Beyond the EU borders, Funds expenditures induce capital compensation boosts in emerging countries not balanced by a similar labor compensation impulse. Indeed, China captures the bulk of low-skilled and temporary employment.



INTERNATIONAL INPUT-OUTPUT ASSOCIATION

Highlights in journals

Zhang, P., Yuan, H., Bai, F., Tian, X. and Shi, F. (2018) [How do carbon dioxide emissions respond to industrial structural transitions? Empirical results from the northeastern provinces of China.](#) *Structural Change and Economic Dynamics*.

Upgrading the industrial structure under the constraints of CO₂ emission reduction policies is an urgent challenge for northeastern China, which has experienced slow industrial growth. We analyze the impacts of industrial structure transitions on CO₂ emissions and reveal significant impacts across the three provinces. Machinery and light manufacturing have shown rapid growth, and their CO₂ emissions related to CO₂ intensity and production structure changes have exhibited a significant decline. However, traditional carbon-intensive industries such as resource-related manufacturing and mining still emit a large amount of CO₂ and existing improvements in production structure are far from sufficient. Construction is one of the largest and fastest growing emitters, yet improvements in CO₂ intensity and production structure have only been observed in Liaoning and Jilin. In conclusion, changing the industrial structure is helping northeastern China mitigate their

CO₂ emissions; however, more effective and targeted strategies are required for sustainable future industrial development.

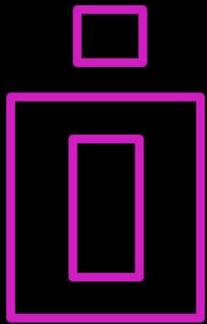
Wang, H., Wang, W., Liang, S., Zhang, C., Qu, S., Liang, Y., Li, Y., Xu, M., and Yang, Z. (2019) [Determinants of Greenhouse Gas Emissions from Interconnected Grids in China.](#) *Environmental Science & Technology*.

While direct greenhouse gas (GHG) emissions by China's power sector from the generation side have been widely investigated, driving forces from the electricity consumption perspective and inter-regional electricity transmission have been overlooked to a large extent. This study quantified relative contributions of six factors to changes in GHG emissions from interconnected grids in China during 2008–2015. These six factors include three generation-side factors (i.e., fuel mix of thermal power generation, energy efficiency of thermal power generation, and electricity structure), two consumption-side factors (i.e., electricity efficiency of GDP and GDP), and electricity transmission structure. GDP growth and changes in fuel mix of thermal power generation are two major drivers of increased GHG emission during 2008–2015, especially for the North China Grid. In contrast, changes in electricity transmission structure (especially in East China Grid and Southern China Grid), the

increase in electricity efficiency of GDP (except for Northwest China Grid), improvements in energy efficiency of thermal power generation (especially in North China Grid and Central China Grid), and changes in electricity structure (especially in Southern Power Grid) are major factors offsetting GHG emission increments. Findings of this study can provide multiple-perspective policy implications for GHG mitigation in China's power sector.

Khan, M. A., Zada, N., and Mukhopadhyay, K. (2018) [Economic implications of the Comprehensive and Progressive Agreement for Trans-Pacific Partnership \(CPTPP\) on Pakistan: a CGE approach.](#) *Journal of Economic Structures*.

The Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP) is one of the recently negotiated multilateral free trade agreements which aims to establish a free trade agreement between 11 economies (after US exit) on both sides of the Pacific. The formation and implementation of this proposed partnership is a valid threat for other economies, particularly for Pakistan. Pakistan will likely to suffer from this agreement due to trade diversion of textile and apparels in favor of the CPTPP members. The reason can be extended in terms of the likely 'yarn forward rule,' according to which, it is obligatory for the CPTPP member economies to import all the components of manufactured



INTERNATIONAL INPUT-OUTPUT ASSOCIATION

products from other CPTPP member economies. So, the implementation of the CPTPP will have an impact on global supply chain of textile and apparels. With this backdrop, this study evaluates the likely impacts of the CPTPP on the regional trade flows and other macroeconomic aggregates of Pakistan using a global computable general equilibrium model. The economy-wide results show the proposed CPTPP will have a negative impact on Pakistan's real GDP, sectoral exports and imports and at household level. However, if Pakistan joins CPTPP, there is an overall positive impact on Pakistan's economy. Thus, keeping in view Pakistan's ideal geographical and strategic location and its potential to be a transit economy with a junction of south Asia, west Asia and central Asia, this study suggests that Pakistan's proposed entry to CPTPP will not only yield a wide gain to the region but will reduce the gap between poor and rich in Pakistan and hence will have a positive impact on overall income inequality in Pakistan.

Lenzen, M., Sun, Y., Faturay, F., Ting, Y., Geschke, A., and Malik, A. (2018) [The carbon footprint of global tourism](#). *Nature Climate Change*.

Tourism contributes significantly to global gross domestic product, and is forecast to grow at an annual 4%, thus outpacing many other economic sectors. However, global carbon emissions related to tourism are currently not well quantified. Here, we quantify tourism-related global carbon flows between 160 countries, and their carbon footprints under origin and destination accounting perspectives. We find that, between 2009 and 2013, tourism's global carbon footprint has increased from 3.9 to 4.5 GtCO_{2e}, four times more than previously estimated, accounting for about 8% of global greenhouse gas emissions. Transport, shopping and food are significant contributors. The majority of this footprint is exerted by and in high-income countries. The rapid increase in tourism demand is effectively outstripping the decarbonization of tourism-related technology. We project that, due to its high carbon intensity and continuing growth, tourism will constitute a growing part of the world's greenhouse gas emissions.

Guerra, A. and Sancho, F. (2018) [Positive and normative analysis of the output opportunity costs of GHG emissions reductions: A comparison of the six largest EU economies](#). *Energy Policy*.

Any policy that aims at reducing GHG emissions by way of modulating the structure of an economy will entail resource reallocation and therefore an implicit economic cost. In this paper, we present a novel answer to this question using positive and normative analyses in such a way that they complement one another. From a positive perspective, we first propose a new look at the analysis of sectors' distributed GHG forward emissions on the basis of absolute rather than marginal effects. Using this information, we then move to a normative viewpoint using an environmental extended input-output linear programming system and compute lower bounds for the potential gross and net output losses for each production unit when facing emissions reduction targets, such as those proposed by the European Union in their 20-20-20 Directive. The originality of our approach relies on two aspects, namely, the introduction of an Armington assumption to link domestic and imported output and that, differently to previous works, total final demand drives the optimal adjustments to reach emissions cuts while minimizing output losses. Our empirical exercise compares the results of these normative and positive analyses for the six largest economies in the European Union.



INTERNATIONAL INPUT-OUTPUT ASSOCIATION

Reynolds, C., Agrawal, M., Lee, I., Zhan, C., Li, J., Taylor, P., Mares, T., Morison, J., Angelakis, N. and Roos, G. (2018) [A sub-national economic complexity analysis of Australia's states and territories](#). *Regional Studies*.

A sub-national economic complexity analysis of Australia's states and territories. *Regional Studies*. This paper applies economic complexity analysis to the Australian sub-national economy (nine regions with 506 exported goods and services). Using a 2009 Australian multi-regional input-output table for base data, we determine the number of export goods or services in which each state and territory has a revealed comparative advantage, and visualize the complexity of Australia's interstate and international exports. We find that small differences in industrial capability and knowledge are crucial to relative complexity. The majority of states (especially Western Australia) export primarily resource-intensive goods, yet interstate trade has many complex products that are not currently internationally exported.

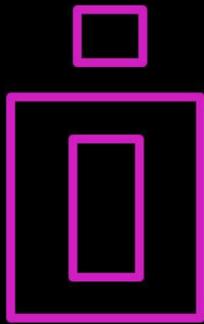
Akizu-Gardokiab, O., Bueno, G., Wiedmann, T., Lopez-Guede, J. M., Arto, I., Hernandez, P. and Moran, D. (2018) [Decoupling between human development and energy consumption within footprint accounts](#). *Journal of Cleaner Production*.

Historically, the growth of energy consumption has fuelled human development, but this approach is no longer socially and environmentally sustainable. Recent analyses suggest that some individual countries have responded to this issue successfully by decoupling Total Primary Energy Supply from human development increase. However, globalisation and international trade have allowed high-income countries to outsource industrial production to lower income countries, thereby increasingly relying on foreign energy use to satisfy their own consumption of goods and services. Accounting for the import of embodied energy in goods and services, this study proposes an alternative estimation of the Decoupling Index based on the Total Primary Energy Footprint rather than Total Primary Energy Supply. An analysis of 126 countries over the years 2000–2014 demonstrates that previous studies based on energy supply highly overestimated decoupling. Footprint-based results, on the other hand, show an overall decrease of the Decoupling Index for most countries (93 out of 126). There is a reduction of the number of both absolutely decoupled countries (from 40 to 27) and relatively decoupled countries (from 29 to 17), and an

increase of coupled countries (from 55 to 80). Furthermore, the study shows that decoupling is not a phenomenon characterising only high-income countries due to improvements in energy efficiency, but is also occurring in countries with low Human Development Index and low energy consumption. Finally, six exemplary countries have been identified, which were able to maintain a continuous decoupling trend. From these exemplary countries, lessons have been identified in order to boost the necessary global decoupling of energy consumption and achieved welfare.

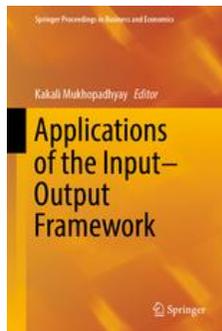
Flegg, A.T., and Tohmo, T. (2018) [The regionalization of national input-output tables: A study of South Korean regions](#). *Papers in Regional Science*.

This paper uses survey-based data for 16 South Korean regions to refine the application of Flegg's location quotient (FLQ) and its variant, the sector-specific FLQ (SFLQ). These regions vary markedly in terms of size. Especial attention is paid to the problem of choosing appropriate values for the unknown parameter δ in these formulae. Alternative approaches to this problem are evaluated and tested. Our paper adds to earlier research that aims to find a cost-effective way of adapting national coefficients, so as to produce a satisfactory initial set of regional input coefficients for regions where survey-based data are unavailable.



INTERNATIONAL INPUT-OUTPUT ASSOCIATION

Highlights in Books



Applications of the Input-Output Framework

Editors: Mukhopadhyay, Kakali (Ed.)

This book provides a fresh perspective on the ever-growing relevance of input-output analysis in problem solving. It is based on the "19th National Conference of the Input-Output Research Association of India (IORA)", held in 2017 in Mumbai, India. The conference promoted the exchange of ideas on input-output analysis and related methods among economists, government officials, policymakers, academicians and industrialists.

Sustainability Assessment and Reporting

Gokten, S. and Gokten, P. (Eds)



Using a Social Accounting Matrix for Analysing Institutions' Income: A Case from Portugal

by Susana Santos

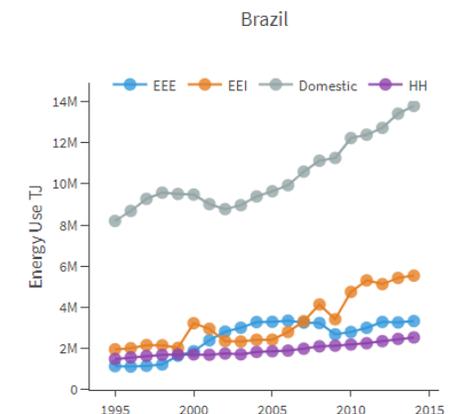
A social accounting matrix (SAM) is a tool that has specific features for conducting studies in several different areas, as well as for supporting the policy decision process. Following an application for Portugal, a SAM-based approach is adopted for studying (measuring and modelling) the impact of the introduction of a social policy measure of the increase in households' income on the socio-economic activity of a country, and the associated institutions' income. Numerical and algebraic versions of a SAM enable the identification of the networks of the linkages of the monetary or nominal flows measured by the national accounts and the corresponding structural features, as well as the associated multiplier effects, which are used to measure the impact on the socio-economic activity. This measurement is at a macroeconomic level, using macroeconomic aggregates and balances.

Others

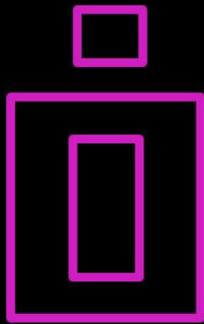
Factor Flow by Viktoras Kulions

Online visualisation tool to display energy flows embodied in trade for the period from 1995 to 2014.

It uses data from WIOD 2013 and WIOD 2016 releases.



➔ Check [here](#) for other visualizations!



INTERNATIONAL INPUT-OUTPUT ASSOCIATION

Events

Next courses

**18th Workshop on Economic Modeling:
International Trade Policy Analysis using
GTAPinGAMS and GAMS/MPSGE**
March 11-15, 2019

**Department of Applied Economic
Analysis at the University of Las Palmas
de G.C. (Canary Islands, Spain)**

Instructors:

Prof. Dr. Christoph Böhringer

Dr. Edward Balistreri

Dr. Casiano Manrique

This workshop provides a practical guideline to computable equilibrium analysis of international trade policies using data of the Global Trade Analysis Project (GTAP) featuring detailed national accounts on production and consumption for many commodities together with bilateral trade flows for a large number of countries. The workshop will discuss alternative approaches to study the implications of trade policy shocks in partial and general equilibrium frameworks that include:

(i) the common Armington assumption that goods of different origin command different prices, (ii) an alternative notion of Heckscher-Ohlin that goods of different origin are homogenous, and (iii) monopolistic-competition settings that are central to the new trade theories with variety impacts through firm entry and exit, as well as selection effects in a heterogeneous-firms context based on the seminal work by Melitz.

To gain policy-relevant insights applied (computable) equilibrium analysis involves the use of empirical data. For multi-sector multi-region policy appraisal the Global Trade Analysis Project (GTAP) offers a unique dataset which we can use to calibrate (parameterize) models to observed economic data (input-output tables, income-expenditure accounts, taxes and tariffs, bilateral trade flows, etc.). We will demonstrate how we can easily extract and aggregate GTAP data for applied policy analysis using ready-made GAMS routines (the so-called GTAPinGAMS package).

A thematic focus of the workshop is the assessment of potential efficiency gains from international trade and the incidence of trade policy reforms across regions, sectors, and factor owners. This focus seems quite topical given the current movements away from more or less

cooperative trading systems. The policy appraisal might hinge to a critical extent on the structural assumptions about international trade. Against this background we discuss and implement alternative theoretical approaches to study international trade (Armington, Heckscher-Ohlin, Krugman, and Melitz).

Before we switch from more stylized models to large-scale models of applied policy analysis we introduce MPSGE (Mathematical Program Subject to General Equilibrium), a meta-language – building on MCP – that greatly facilitates the implementation of large-scale computable general equilibrium (CGE) models.

The workshop will consist of five segments:

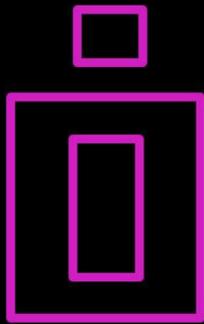
Part 1: GAMS, Economic Equilibrium and Mixed Complementarity

Part 2: Partial equilibrium models of trade and commercial policy, the GTAP data, and data management under GTAPinGAMS

Part 3: General equilibrium models for policy analysis and MPSGE

Part 4: Trade policy analysis with GTAPinGAMS and GAMS/MPSGE

Part 5: Advanced trade theories and applications



INTERNATIONAL INPUT-OUTPUT ASSOCIATION

2019 Short Course in Dynamic Global Trade Analysis

April 10-14, 2019

West Lafayette, IN, USA

"Applied General Equilibrium Analysis
using a Dynamic Multi-Region Model"

Background and Objectives

The objective of this course is to introduce participants to dynamic economic analysis in an applied general equilibrium setting. This course is designed to provide participants with ample hands-on training with software that has been tailored for undertaking analysis using a dynamic recursive model. Participants will interact with economists working on global trade and environmental issues using a dynamic model. The end goal of the course is for participants to leave with the capability of conducting and analyzing their own dynamic simulations.

Features of the newly developed multi-region, multi-sector general equilibrium model include:

Recursive dynamics based on the GTAP Model (v7), including parameters by region and the flexibility of a make matrix that allows activities to produce one or more commodities

"Twist" preference parameters to capture domestic-imported bundle shifts and capital-labor changes over time

Course participants will learn to aggregate their economic database and develop a business as usual scenario using information from the Shared Socioeconomic Pathways, which has been annualized for ease of use.

Structure

The course consist of a mix of daily lectures, lab assignments, and informal discussions designed to introduce participants to the basic features of the model and database. Participants will undertake formal lecture and lab assignments in the mornings and spend the afternoons working in groups to build their own economic applications, which includes working with data to develop a baseline and policy experiments. The groups will present the results of their applications on the final day.

Application

Individuals interested in taking this course must apply on the GTAP website. All applications will be reviewed following the deadline. Those individuals accepted into the course will receive an email detailing how to register and arrange for payment. Please note that application does not guarantee acceptance.

Prerequisites

It is expected that applicants have undertaken courses on multi-region general equilibrium (GE) analysis or have completed a significant piece of analysis using a dynamic multi-region GE model or another, comparable, general equilibrium model. Please contact the Center for Global Trade Analysis for further information.





INTERNATIONAL INPUT-OUTPUT ASSOCIATION

ERSA Summer School 2019

June 16-22, 2019

Katowice, Poland



The European Regional Science Association is pleased to announce in collaboration with ERSA Polish Section and the University of Economics in Katowice that the 32nd ERSA Summer School will be held from 16th June to 22nd June at the University of Economics in Katowice, Poland.

The summer school programme will feature the theme "Cities and regions in the process of transformation"? In pursuit of prevailing research concepts: geography of innovation, economic resilience, smartness, specialisation ... What else?

Key Dates

- Call for Application Start: 17th December 2018
- Application deadline: 9th March 2019
- Notification of acceptance and registration start: 12th April 2019
- Deadline for registration and payment registration: 30th April 2019v



University
of Economics
in Katowice

7th Annual Short Course in Global Trade Analysis

August 3-8, 2019

West Lafayette, IN, USA

"Introduction to Applied General
Equilibrium Analysis in a Multi-Region
Framework"

Background

The short course consists of two parts. The online phase is an eight-week sequence where students get in-depth training about the microeconomic underpinnings of applied general equilibrium (AGE) models. The online course allows for self-paced learning on a modular basis. Each weekly module requires an end of week submission that triggers feedback from the instruction team. The onsite course is a mix of lecture and lab sessions designed to develop the economic intuition required to perform high-level policy analysis using the GTAP Model and Data Base. These activities culminate in a major application undertaken by small groups and presented on the final day of the course.



INTERNATIONAL INPUT-OUTPUT ASSOCIATION

Objectives

introduce participants to a standardized framework (GTAP Model, v7) for conducting global policy analysis in an applied general equilibrium setting

provide participants with hands-on training with software that has been tailored to instruction in economic analysis with minimal software manipulation overhead

deliver participants an opportunity to interact with economists working on global trade and resource use issues and provide the perfect entry point to the international network of AGE modelers and policy analysts using GTAP data and models

Structure

The GTAP Short Course is comprised of an eight-week online instruction program followed by an intensive onsite course delivered by a team of GTAP specialists in data, model construction, and policy analysts.

Part I: Online - The first portion of the GTAP Short Course is an eight-week online program to refresh and reinforce economic foundations of applied general equilibrium analysis. These modules build student capacity in implementing microeconomics and national accounting concepts into a quantitative modeling environment.

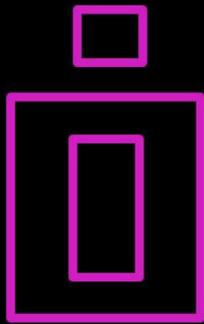
Each weekly module adds core components to the traditional 'circular flow' economy structure of general equilibrium, while emphasizing data and software solutions that are specific to the GTAP architecture. Student progress is measured in each weekly module by a set of short summary quizzes and a brief assignment to encourage synthesis of module material and facilitate feedback from the instruction team. Working through online material in advance of the onsite portion of the course provides students with a functional background on theory, data, and software.

Dates/Deadlines (Eastern Time Zone)

<u>Course Application</u>	October 29 - March 3
Acceptance Notifications	April
<u>Lodging Reservations</u>	July 10
Online Course	May 20 - July 21
Onsite Course	August 3-8

Part II: Onsite - This second portion of the GTAP Short Course focuses on applied policy analysis, aimed at helping students master the techniques for developing policy scenarios and understanding the economic interactions 'drive' CGE model impacts. A core learning objective of the onsite course is preparing students to contribute to policy debates using quantitative analyses developed from the standard GTAP framework and the suite of model 'extensions' that have been developed for more specialized analysis. The capstone experience of the course is for students to develop and present a short analysis using one of these 'extensions' to their classmates and the instruction team. The extensions taught in the course typically focus on the two primary areas of Center for Global Trade Analysis research efforts on energy/environment (e.g. renewable energy or land use) and trade/protection (e.g. "trade wars" or regional FTA proposals).





INTERNATIONAL INPUT-OUTPUT ASSOCIATION

Practical GE Modelling Course

September 9-13, 2019

Vienna, Austria

Outline

The [Centre of Policy Studies](#) (CoPS) offers an intensive one-week course introducing participants to computable general equilibrium (CGE) modelling with GEMPACK software. The course will be hosted by the [Austrian Institute of Economic Research](#) (WIFO).

The course focuses on a typical single-region applied general equilibrium model: the ORANI-G model of the Australian economy. Variants of the ORANI model of the Australian economy have been used extensively for policy analysis in Australia for more than two decades. ORANI-G, a generic version of ORANI, has been used to model the economies of more than 30 countries around the world.

The course aims to introduce participants to the ideas and techniques of CGE modelling, and to equip them to start using, adapting or constructing CGE models for their own simulations. By the end of the course, participants will have acquired thorough knowledge of:

- the theory underlying CGE models;
- the basic structure of a typical CGE model;
- the representation of applied GE models in the notation used in GEMPACK;
- the data requirements of a typical single-country CGE model;
- checking that the equations and data of a model are implemented correctly on the computer;
- formulating exogenous scenarios;
- computing simulations for policy analysis and interpreting and reporting results.

The course program consists of lectures integrated with a sequence of practical computer exercises using GEMPACK. This provides a strong emphasis on learning through analysis of stylized simulations including a rise in wages, an increase in government spending or a change in applied tariffs. The course will be taught by the world-leading CGE [modellers from the Centre of Policy Studies](#).

The course should appeal to

- those needing background to work with, or understand results from, a typical CGE model like ORANI-G;
- those wishing to use the theory of ORANI-G with GEMPACK for a model of a country other than Australia;
- those wanting to understand current policy issues in the context of a formal economy-wide system.

More information For more information please visit the Practical GE Modelling course page [here](#).

WIFO  AUSTRIAN INSTITUTE OF
ECONOMIC RESEARCH

 **CoPS**
SINCE 1975

 **VICTORIA
UNIVERSITY**
MELBOURNE AUSTRALIA



INTERNATIONAL INPUT-OUTPUT ASSOCIATION

Next conferences

The 3rd International Conference on Economic Structures (ICES 2019)

March 18- 19, 2019

Osaka, Japan

Organizers: Pan-Pacific Association of Input Output Studies(PAPAIOS)

The 3rd International Conference on Economic Structures 2019 (ICES 2019) will be held on 18 & 19 March 2019 at Ritsumeikan University (Osaka Ibaraki Campus(OIC)), Japan (Address: Ritsumeikan University, 2-150 Iwakura-cho, Ibaraki, Osaka, Japan). The Pan Pacific Association of Input-Output Studies invites your participation and contribution to the ICES 2019. ICES 2019 of this year focuses on the following sub-themes. All contributions that address the following sub-themes are especially welcomed. We also welcome your proposals for organized special sessions.

- (1) Environment, Resource and Energy
- (2) International Economy and International Development
- (3) Telecommunication and Information Technology
- (4) Productivity
- (5) Computable General Equilibrium Model
- (6) Regional Input-Output Analysis
- (7) Theory of Input-Output Techniques
- (8) Compilation of Input-Output Table, SNA, or SAM
- (9) Disaster and the Economy/Society
- (10) Others



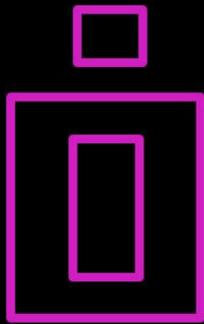
Chair of the Local Organizing Committee: Nobuki SUGITA, Ritsumeikan University, Japan

Chair of the Scientific Program Committee: Kazuo INABA (Former President of PAPAIOS), Ritsumeikan University, Japan Contact: ICES_PAPAIOS@yahoo.co.jp

Further information will be announced in the following website:

<http://www.gakkai.ne.jp/papaios/en/index.html>





Newsletter

Number 39, February 2019

INTERNATIONAL INPUT-OUTPUT ASSOCIATION

2019 Southern Regional Science Association Meeting

April 4–6, 2019



Arlington, VA
(Washington, DC Metro)

Call for Papers

Join us for the 58th Annual Southern Regional Science Association Meetings at the Key Bridge Marriott Hotel

For more information on submitting organized sessions, individual abstracts, undergraduate poster abstracts, and Moriarty and Miernyk award applications can be found by clicking on the conference link at www.srsa.org.

Deadlines

Organized Sessions/Individual Abstracts: January 18th
Moriarty Graduate Student Paper Award: February 15th
William H. Miernyk Research Excellence Medal: February 15th
Undergraduate Poster Abstracts: February 15th

XXXVII International Congress of the Latin American Studies Association

May 24-27, 2019



LASA2019

BOSTON, USA / MAY 24 - 27, 2019

Nuestra América: Justice and Inclusion

The call for papers is now open.

You are invited to submit a paper or panel proposal addressing either the congress theme or any topic related to the program tracks. LASA also invites requests for travel grants from paper presenters who qualify. Visit the LASA website for eligibility criteria.

Special panel discussions on Implementing the Paris Agreement and Carbon footprint and Environmental humanities.

Track chairs on Biodiversity, Climate Change, Environment and Natural Resources: Pablo Ruiz Nápoles (UNAM, Mexico) and María Ángeles Cadarso (UCLM, Spain).



LATIN AMERICAN
STUDIES ASSOCIATION



INTERNATIONAL INPUT-OUTPUT ASSOCIATION

22nd Annual Conference on Global Economic Analysis

June 19-21, 2019

Warsaw, Poland

"Challenges to Global, Social, and Economic Growth"

The goal of the conference is to promote the exchange of ideas among economists conducting quantitative analysis of global economic issues. Particular emphasis will be placed on applied general equilibrium methods, data, and application. Related theoretical and applied work is also welcome.

A global network of individuals and institutions conducting economy-wide analysis of trade, resource, and environmental policy issues has emerged. Thousands of these researchers now use a common data base, supplied by the Global Trade Analysis Project (GTAP). The project is coordinated by the Center for Global Trade Analysis at Purdue University with the support of a consortium of national and international agencies. The GTAP Data Base is a key input into most of the contemporary applied general equilibrium (AGE) analysis of global economic issues. Participants are given the opportunity to present their work, interact with other professionals in the field, and learn about the most recent developments in global economic analysis.

The overall theme of the conference is "Challenges to Global, Social, and Economic Growth" with subthemes on:

International trade and trade policy and slowing down globalization

Migrations, demographic change and the labor market

Environmental challenges and energy policy

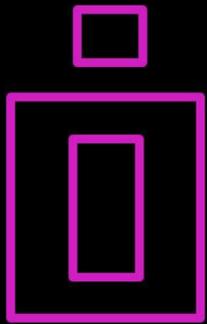
Dates/Deadlines (Eastern Time Zone)

<u>Abstracts</u>	Nov 5 - Jan 15
<u>Organized Session Proposals</u>	Nov 5 - Jan 15
<u>Scholars Program</u>	Nov 5 - Jan 15
<u>Travel Funding Opportunities</u>	Nov 5 - Jan 15
Abstract Review	Jan 18 - Feb 10
Acceptance Notifications	late Feb
Final Papers	Apr 15
Early Registration	Feb - Apr 15
Late Registration (Late fee incurred)	Apr 16-30
Registration Payment	May 7



UNIVERSITY OF WARSAW
Faculty of Economic Sciences





INTERNATIONAL INPUT-OUTPUT ASSOCIATION

26th APDR Congress

July 4-5, 2019



The 26th APDR Congress will be held at the University of Aveiro, which hosted its first edition in 1990. This congress will allow a debate on the needs and challenges of territorialising public policies and on the role of (big) data, information and technologies in planning and regional development.

Thus, the 26th APDR Congress emphasizes the interactions between three dimensions: i) data and information; ii) tools and models; iii) policies and instruments.



59th ERSA Congress

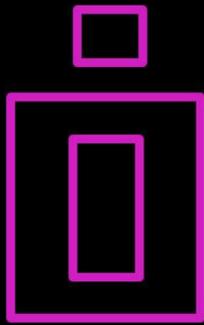
August 27-30, 2019



Key Dates

- October 22nd 2018: Call for Special Sessions
- December 7th 2018: Deadline Special Sessions Proposals
- December 10th 2018: Open submission for abstracts (and papers)
- February 28th 2019: Deadline abstract (and paper) submission
- March 29th 2019: Notification of acceptance and registration opens
- May 13th 2019: Deadline registration at early bird fees
- June 10th 2019: Deadline registration
- Early July: Final programme





Newsletter
Number 39, February 2019

INTERNATIONAL INPUT-OUTPUT ASSOCIATION

8th Conference on Input-Output Analysis (Hispanic-American Input-Output Society, SHAI0)

September 11-13, 2019

Santiago de Compostela, Spain

The Hispanic-American Input-Output Analysis Society ([SHAI0](#)) in collaboration with the [University of Santiago de Compostela](#), [AYeconomics](#) and the [GAME Group](#), will organize the 8th SHAI0 Conference on Input-Output Analysis on September 11-13, 2019 in one of the most beautiful cities in Spain, Santiago de Compostela, Galicia.



Key Dates:

Abstract and special sessions proposals submission deadline: May 31, 2019

Notification of acceptance of abstract and special sessions proposals: June 10, 2019

Full paper submission deadline: July 22, 2019

Registration for the Spanish School deadline: July 22, 2019

Submission Emilio Fontela Prize deadline: July 22, 2019

Early bird registration deadline: July 26, 2019

Regular registration deadline: August 30, 2019

Spanish School of IOA: September 11, 2019

Spanish Conference on IOA: September 12-13, 2019



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INTERNATIONAL INPUT-OUTPUT ASSOCIATION

27th IIOA Conference

June 30 - July 5, 2019



The Office for National Statistics in collaboration with the University of Strathclyde, Fraser of Allander Institute, Glasgow Convention Bureau and the Scottish Government will ensure that we make the 2019 IIOA Conference a truly memorable occasion.

We will deliver an inclusive, innovative, accessible, affordable and enjoyable conference for all delegates in a state of the art conference centre in Glasgow, which is one the UK's most vibrant, cultural and friendly cities located at the gateway to the magnificent Scottish Highlands.

The 2019 Conference will build on the successes of previous IIOA Conferences as well as provide a programme to inspire the next generation and encourage partnerships and collaborations in the field of Input-Output and the much wider field of economic statistics.

Sanjiv



Mr Sanjiv Mahajan
Chair of Local Organisation Committee
Office for National Statistics

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