

# October 2010 GEMPACK Practical CGE Modelling Course in Poland

offered by

Centre of Policy Studies, Monash University

in cooperation with

Polish Academy of Sciences, IRWiR

18-22, October 2010, Warsaw (Poland)

This one-week intensive course will introduce participants to practical computable general equilibrium (CGE) modelling, and to the GEMPACK software used to solve equilibrium models. The course material is structured around an Australian implementation of the ORANI-G, a CGE model that have served as a template for many single country models. This course should appeal to those needing background in CGE modelling in order to work with, or understand results from a typical single-country CGE model and to those wishing to learn CGE modelling using GEMPACK.

Outside of course hours, there will be many activities scheduled for participants, taking advantage of Warsaw's rich offerings of museums, theatres, exhibitions and restaurants.

For more details, or to register, please contact:

Katarzyna Drozdziel, Project Officer [katarzyna.drozdziel@irwirpan.waw.pl](mailto:katarzyna.drozdziel@irwirpan.waw.pl)

Dr Katarzyna Zawalinska, Deputy Director, [kzawalinska@irwirpan.waw.pl](mailto:kzawalinska@irwirpan.waw.pl)

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RWiR Polish Academy of Sciences

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<http://www.irwirpan.waw.pl>

# TIME AND PLACE

The Staszic Palace  
Nowy Świat 72 St.  
00-330 Warsaw  
Poland



## **The Staszic Palace**

All sessions will take place between 18-22 October, 2010 in the Staszic Palace, the main building of the Polish Academy of Sciences. Located in the heart of Warsaw. The Staszic Palace is only 5 minutes walk from the historic Old Town, 3 minutes walk from the University of Warsaw, and 8 minutes walk from the metro station. There are many hotels, restaurants, museums, cinemas within easy walking distance.

## **Why visit Warsaw?**

Like any European capital, Warsaw has many iconic tourist attractions. If you are visiting Warsaw for the first time, you will be surprised how much the city has to offer and how many places there are to see and things to do. This is a city with a wealth of history, the birthplace of Chopin, a city with fantastic palaces, the enchanting royal gardens of Łazienki Park and the famous Old Town, rebuilt from scratch after its destruction during World War II, now a thriving center of cultural significance. At the heart of many of Warsaw's tourist attractions is the "Royal Route", which runs north-south between the New and Old Towns, past the fashionable shops of Nowy Świat, the palaces

that survived the war and the of Łazienki Park, before reaching Wilanów Palace to the south of the city centre. The city boasts many green spaces, with leafy parks, hosting free classical concerts and open air festivals, attracting large crowds. The city enjoys a diverse and vibrant nightlife scene with the city's clued-up and well dressed youth flocking to the countless bars and clubs of a city that buzzes after dark.

## **How to get to Warsaw?**

**By air.** Warsaw Fryderyk Chopin Airport serves both regular and cheap airlines and is about 10 km from the city centre. Booking well in advance one can buy inexpensive ticket from many destinations in Europe, North America, Asia or Australia. The majority of international airline representatives have their offices at the international airport in Warsaw. You can easily reach the city centre from the airport by bus number 175 ( all week from 04:57 to 22:57) or N32 ( all week from 23:10 to 04:40) or by taking a taxi. The cost of a single bus ticket is approx. 0,7 EUR. The cost of a taxi from the airport to the Staszic Palace is about 10 EUR.

**By train.** Warsaw has three large railway stations for international and intercity

connections: Western Warsaw Station (Zachodnia), Central Warsaw Station (Centralna), Eastern Warsaw Station (Wschodnia).

The best place to get on and off trains is the Central Station, located in the heart of the city centre (54 Jerozolimskie Av.).

**By coach.** The largest coach station, both for international and domestic destinations, is the Western Warsaw Coach Station (Dworzec PKS Warszawa Zachodnia), 144 Jerozolimskie Street. The concourse has tourist and coach information offices. Another coach station, for eastbound destinations, both domestic and international (Belarus, Lithuania, Latvia, Ukraine, Russia - Kaliningrad), is the Warsaw East Station (Warszawa Wschodnia). Information on international coach destinations: tel. (+48 22) 823 57 70 or (+48 22) 628 62 53.

Essential information for tourists visiting Warsaw can be found at Official Warsaw website: <http://e-warsaw.pl/2/index.php?id=475>

Pictures of Warsaw: <http://www.facesofwarsaw.com>

# COURSE PROGRAM

All sessions will take place in the main building of the Polish Academy of Sciences, Palace of Staszic, Warsaw, Poland, 72 Nowy Swiat Street.

## Monday 18 October

9.00 AM	Software installation, Course Welcome and Introductions
9.45 AM	<b>Morning tea</b>
10.00 AM	The Broad Structure of a CGE model
11.00 AM	Lab: First ORANI-G simulation
12.30 PM	<b>Lunch</b>
1.30 PM	Introduction to ORANI-G Solution Method, the TAB file
2.30 PM	Lab: Interrogating the data
4.00 PM	<b>Afternoon tea</b>
4.30 PM	Theory of ORANI-G Core Coefficients
5.30 PM	Lab: Interrogating the data (1.5 hour)
7.00 PM	Close

## Tuesday 19 October

8.45 AM	Overview of GEMPACK
9.45 AM	<b>Morning tea</b>
10.00 AM	Lab: Clousure and Homogeneity
11.30 AM	Theory of ORANI-G Production Structure
12.30 PM	<b>Lunch</b>
1.30 PM	Theory of ORANI-G model More Production Structure, output mix
2.30 PM	Lab: Wage cut simulation
4.00 PM	<b>Afternoon tea</b>
4.30 PM	Wage cut Analysis and Discussion
5.30 PM	Lab: Wage Cut Industry Results (1.5 hour)
7.00 PM	Close

## Wednesday 20 October

8.45 AM	Wage Cut Discussion ( industry results)
9.45 AM	<b>Morning tea</b>
10.00 AM	Theory of ORANI-G model Export/Local Mix;capital creation
11.00 AM	Lab: Analyse GE and Tariff simulation 1
12.30 PM	<b>Lunch</b>
1.30 PM	Theoretical Structure of ORANIG Household Demands
2.30 PM	Lab: Tariff simulation 2
4.00 PM	<b>Afternoon tea</b>
4.30 PM	Theory of ORANI-G model Other Final Demands, market clearing
5.30 PM	Lab: Adding equations to model (1.5 hour)
7.00 PM	Close

Thursday  
21 October

8.45 AM	Theoretical structure of ORANIG Purchasers prices and Macros
9.45 AM	<b>Morning tea</b>
10.15 AM	Theoretical structure of ORANIG Investment and Labour market
11.15 AM	Official Photo
11.30 PM	Theory of ORANI-G Explaining results, closure
12.30 PM	<b>Lunch</b>
1.30 PM	Regional Extension to ORANI-G
2.30 PM	Group Projects, Allocation and Computing
4.00 PM	<b>Afternoon tea</b>
4.30 PM	Group Projects Computing and Analysis (2.5 hours)
7.00 PM	Close

Friday  
22 October

8.45 AM	Group Projects
9.45 AM	<b>Morning tea</b>
10.00 AM	Preparing Reports on Group Projects
12.00 AM	Presentation of Reports on ORANIG Simulations
12.30 PM	<b>Lunch</b>
4.00 PM	Course Wrap-up

## ORGANIZERS & LECTURERS

**The Centre of Policy Studies (CoPS)**, part of the Monash University's Faculty of Business and Economics, is a world leader in the development and application of computable general equilibrium (CGE) modeling. CoPS undertakes academic/contract research and software development, conducts training courses in CGE modeling, and offers graduate student supervision. CoPS modelling techniques have been applied worldwide, with researchers at CoPS completing projects in South Africa, Brazil, Taiwan, Thailand, China, Vietnam and many other countries. Perhaps the most prominent international implementation of a CoPS model is USAGE , a 500 sector dynamic computable general equilibrium model of the US economy, developed by CoPS researchers in collaboration

with the US International Trade Commission. The single-country generic model called ORANI-G has been created as a pattern on which to base models of other countries. CoPS's modeling software, **GEMPACK** is used in over 400 other locations in around 70 countries.

More on  
**GEMPACK**

**The CoPS website:**  
<http://www.monash.edu.au/policy/index.htm>

**Monash University website:**  
<http://www.monash.edu.au/>

**The Institute of Rural and Agricultural Development** is situated in the Social Sciences Department of the Polish Academy of Sciences. The Institute is a leading research center dealing with research on rural issues and agriculture and an unchallenged precursor of the theoretical studies on the multi-functional development of rural areas. Gathering specialists representing many different disciplines: economics, sociology, demography, ethnology, education, and spatial geography, the Institute provides inter-disciplinary approach to the rural and agricultural policy research. Researchers from the Institute collaborate with the Centre of Policy Studies, Monash University and have developed a regional CGE model of Poland implemented with the GEMPACK software.



**James Giesecke**  
GEMPACK Lecturer

Senior Research Fellow  
Center of Policy Studies  
Faculty of Business and Economics  
Monash University

James Giesecke is a Senior Research Fellow (Associate Professor level) and Director (External Relations) at the Centre of Policy Studies, Monash University. His research is in development and application of large-scale multi-regional and national computable general equilibrium models, with over fifteen year's experience in applying such models to historical, forecasting and policy analysis. He has developed and delivered training courses in static and dynamic CGE modelling in Australia, Germany, the Philippines, Brazil, Italy, Vietnam, Poland, the U.S. and South Africa.

A long CV is available at <http://www.monash.edu.au/policy/ftp/cvs/jadgcv.pdf>

## LECTURERS



**Philip D. Adams**  
GEMPACK Lecturer

Professor and Director  
Center of Policy Studies  
Faculty of Business and Economics  
Monash University

Director and Professor at the Centre of Policy Studies (CoPS), Monash University. He is also the Australian coordinator for the Economic Outlook taskforce of the Pacific Economic Co-operation group. Prior to his current position, Philip was Senior Research Fellow and then Director of Consulting at CoPS, having previously worked at the Bureau of Agricultural Economics (now the Australian Bureau of Agricultural and Resource Economics) and at the Institute of Applied Economic and Social Research (now the Melbourne Institute). His main area of expertise is the application of large multi-sectoral and multi-regional economic models for policy analysis and forecasting. Since completing his Ph.D., he has been involved in the implementation of several large models in Australia and overseas.

More information can be downloaded from Monash University webpage: <http://www.monash.edu.au/policy/staff.htm>



## COURSE FEES & PREPARING FOR THE COURSE

Course fees cover: course materials (including software), lunches, morning and afternoon teas. They do not cover accommodation, transportation, breakfast or evening meals.  
Conference fee: 2000 EUR shall be transferred to the Monash University as follows:

### **BENEFICIARY NAME AND BANK ACCOUNT NUMBER:**

Beneficiary Name: Monash University  
Beneficiary Address: 710 Blackburn Rd, Clayton  
VIC, Australia 3168  
Bank Account Name: Monash University General Account  
Bank: WESTPAC Banking Corporation  
Bank Branch: Union Building, Monash University,  
Wellington Road, Clayton, VIC 3168  
Australia  
Bank Branch Phone: 03 9905 5027  
BSB Number: 033-289  
Bank Account Number: 630759  
SWIFT Code/ Bank Transit No: WPACAU2S  
IBAN Number: 033289630759

### **SEND REMITTANCE ADVICE TO:**

Name: Monash University  
Address: Monash University  
Corporate Finance Division  
710 Blackburn Road, Clayton 3168  
Fax: 03 9905 6358  
Phone: 03 9905 6347  
E-mail: [corporate-banking@adm.monash.edu.au](mailto:corporate-banking@adm.monash.edu.au)  
ABN: 12 377614012

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**YOUR REGISTRATION WILL NOT BE FINALISED UNTIL YOU COMPLETE THE FOLLOWING STEPS.**

Please email the following information back to [katarzyna.drozdziel@irwirpan.waw.pl](mailto:katarzyna.drozdziel@irwirpan.waw.pl) when the money has been transferred. Please note your registration will not be finalized until the money has been received and identified.

Also please attach an electronic copy of any documentation available as proof of payment.

### **ELECTRONIC FUNDS TRANSFER**

- (a) Name of Remitter:
- (b) Amount:
- (c) Type of currency:
- (d) Originating bank:
- (e) Date expected:
- (f) Reference:

In case of any questions or problems related to the conference fee payment, please contact: Katarzyna Drozdziel, Project Officer, [katarzyna.drozdziel@irwirpan.waw.pl](mailto:katarzyna.drozdziel@irwirpan.waw.pl), IRWiR Polish Academy of Sciences, Nowy Swiat Str. 72, 00-330 Warsaw, Poland, Tel.: +48 22 657-27-72, +48 22 657-29-15 Fax: +48 22 657-27-50

# DOCUMENTATION & SOFTWARE

Course participants receive a folder, containing:

- course notes and printed lecture slide shows;
- exercises to be completed in classes and labs;
- documentation of the ORANI-G model and data;
- instructions for installing and using GEMPACK.

At the end of the course participants receive one or more CDs, containing:

- an Executable-Image version of the latest GEMPACK software which will allow them to run ORANI-G simulations on any modern Windows PC, and to construct and run their own models of comparable size;
- PDF files containing the complete GEMPACK documentation;
- an individual GEMPACK licence for the above software;
- all computer files needed to run a standard version of the ORANI-G model ;
- a CD image of the entire CoPS website, containing many example models, working papers, and utility programs.

## Assumed Background

Previous hands-on experience in solving GE models is not required. We expect that course participants have:

- a bachelor or master degree in Economics, or equivalent work experience;
- experience of using a PC running Windows;
- a burning desire to learn how to do CGE modelling.

The course program will consist of lectures integrated with extensive hands-on experience with modelling in GEMPACK. Much of the course will be conducted in a computer laboratory with a fast PC for each participant. The course is designed as an intensive live-in program, with fairly long work hours. The course material and program are as follows.

## Preparing for the course

You should study some material prior to the course. Download and work through the MINIMAL course material at <http://www.monash.edu.au/policy/minimal.htm>. The MINIMAL model and course are simplified versions of the ORANI-G model and course - and use similar notation and software. To go further, you could:

Download and read the ORANI-G document, which you can find at the top of this page:

<http://www.monash.edu.au/policy/oranig.htm>

Download and experiment with the free Demonstration Version of GEMPACK:

<http://www.monash.edu.au/policy/gpdemo.htm>

## Laptop

The training requires that participants bring and use their own laptops. Software shall be installed before travelling to the course. Most Windows laptops will be adequate. Special requirements are:

- the laptop must run Windows XP or later operating system;
- the laptop must have at least 512Kb of RAM, and be able to read CDs;
- the laptop must have a separate mouse (even if it has a touchpad or other pointing device);
- "Administrator" or "Power User" access may be needed during the install process (this might be an issue if your laptop belongs to, or was configured by, your organization's IT section).
- the laptop must be able to "open a DOS box" [Start...Run..."cmd"]. Occasionally system administrators configure PCs to prevent this.
- If you are outside from Europe, please check if you have a plug adaptor so your laptop can plug into an European standard local power socket. Plugs in Europe have two round pins, supply is 230 volts, 50Hz.

To do the course exercises, you'll need to install GEMPACK on your laptop. To learn how to install the GEMPACK please visit: <http://www.monash.edu.au/policy/gplapsoft.htm>

## ACCOMODATION



**Le Royal Merdien Bristol**

One of the hotels in the city center

The Palace of Staszic, main building of the Polish Academy of Sciences, where the course will take its place is located in the city center. It is only 5 minutes walk from the Old Town, 3 minutes walk from the University of Warsaw, and 8 minutes walk from the metro station. There are many accommodation options catering to all budgets within a short walk of the palace. Hotel bookings can be made directly with the hotels/residences or through popular online systems (i.e. [www.booking.com](http://www.booking.com)) that offer discount prices for all types of hotels worldwide.

Should you need more information, our staff can provide advice as to the most suitable options



## VISA & CONSULAR INFORMATION

It is the responsibility of visitors to the Polish Academy of Sciences to inform themselves of polish visa requirements and make suitable arrangements.

For information concerning entry requirements and residence in Poland please contact a local Polish embassy or consulate in your country. Check here for addresses of polish diplomatic and consular posts abroad:

<http://www.msz.gov.pl/Polish,Missions,Abroad,2349.html>

Please note that for stays less than 90 days citizens of the following countries do not need visa (in alphabetical order): Andorra, Argentina, Australia, Austria, Belgium, Brazil, Brunei, Bulgaria, Canada, Chile, Costa Rica, Croatia, Cyprus, Czech Republic, Denmark, El Salvador, Estonia, Finland, France, Germany, Greece, Guatemala, Honduras, Hong Kong (Special Administrative Region), Hungary, Iceland, Ireland, Israel, Italy, Japan, Latvia, Liechtenstein, Lithuania, Luxembourg, Macao (Special Administrative Region), Malaysia, Malta, Mexico, Monaco, Netherlands, New Zealand, Nicaragua, Norway, Panama, Paraguay, Portugal, Romania, San Marino, Singapore, Slovakia, Slovenia, South Korea, Spain, Sweden, Switzerland, United Kingdom, United States of America, Uruguay, Vatican (Holy See), and Venezuela.

The above list of countries can be also checked at the website: <http://www.msz.gov.pl/Countries,which,citizens,are,not,required,to,have,a,visa,when,entering,Poland,2347.html>