GE Modelling Course with GEMPACK by Monash University

May 2009 GEMPACK Practical GE Modelling Course in Poland

offered by
Centre of Policy Studies, Monash University
in cooperation with
Polish Academy of Sciences, IRWiR
11-15, May 2009, Warsaw (Poland)

This one-week intensive course, held in Warsaw, will introduce participants to practical applied general equilibrium (GE) modelling, and to the GEMPACK software used to solve GE models. Course material is ilustrated by the ORANI-G, CGE model of Australia. 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 or generally to those wishing to learn CGE modelling using GEMPACK.

There is also plenty of activities you could do after the course or in the evenings taking advantage of a reach offer of Warsaw museums, theatres, cinemas, exhibitions, etc.

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For more details, or to register, please contact:

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IRWiR Polish Academy of Sciences

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http://www.pan.pl, http://www.irwirpan.waw.pl

1. Time and place

All sessions will take place in the Palace of Staszic, main building of Polish Academy of Sciences located in the heart of Warsaw. It is only 5 minute walk from the Old Town, 3 minute walk from Warsaw University, 8 minute walk from the metro station. Besides there are plenty of buses, hotels, restaurants, museums, cinemas, and more around. The address is:



72 Nowy Swiat Street, 00-330 Warsaw, Poland

Why visit Warsaw?

As in every other European capital, Warsaw, the capital of Poland, has many tourist attractions which make it easier to get to know the city better and which are worth taking advantage of, particularly in the summer. 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.

The tourist attraction of Warsaw is the "Royal Route", which runs north-south from 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 also boasts many green spaces, with leafy parks and free classical concerts and open air festivals in summer, which attract crowds. The nightlife scene today is also very interesting, with the city's clued-up and increasingly well dressed youth flocking to the countless bars and clubs of a city that now buzzes after dark.

How to get to Warsaw?

By air. Warsaw Fryderyk Chopin International 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 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 Palace of Staszic 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.

By car. Foreigners can drive on their national licenses for six months from the entry date on their passports. The speed limit in Warsaw is now 50km/hr. In other urban areas the limit is 60km/hr, outside urban areas 90km/hr, dual carriageways 110km/hr and motorways 130km/hr. Petrol stations are open 24 hours and have small grocery stores inside.

Essential information for toursits 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/

Modern Warsaw, clips: http://www.youtube.com/watch?v=-NIG-HPZa1s

Classical pictures from Warsaw, clips: http://www.youtube.com/watch?v=hJ9RDasuChc

2. 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	9am - 9.45am	Software installation, Course Welcome and Introductions
11 May	9.45am-10am	Morning tea
-	10am – 11am	The Broad Structure of a CGE model
	11am - 12.30pm	Lab: First ORANI-G simulation (drought)
	12.30pm - 1.30pm	Lunch
	1.30pm - 2.30pm	Introduction to ORANI-G
		Solution Method, the TAB file
	2.30 pm - 4.00 pm	Lab: Interrogating the data
	4pm –4.30pm	Afternoon tea
	4.30 pm - 5.30 pm	Theory of ORANI-G
		Core Coefficients
	5.30 pm - 7.00 pm	Lab: Interrogating the data
Tuesday	8.45am – 9.45am	Overview of GEMPACK
Tuesday 12 May	8.45am – 9.45am 9.45am-10am	Overview of GEMPACK Morning tea
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•	9.45am-10am	Morning tea
•	9.45am-10am 10am – 11.30am	Morning tea Lab: Closure and Homogeneity
•	9.45am-10am 10am – 11.30am	Morning tea Lab: Closure and Homogeneity Theory of ORANI-G
•	9.45am-10am 10am – 11.30am 11.30am - 12.30am	Morning tea Lab: Closure and Homogeneity Theory of ORANI-G Production Structure
•	9.45am-10am 10am – 11.30am 11.30am - 12.30am 12.30pm - 1.30pm	Morning tea Lab: Closure and Homogeneity Theory of ORANI-G Production Structure Lunch
•	9.45am-10am 10am – 11.30am 11.30am - 12.30am 12.30pm - 1.30pm	Morning tea Lab: Closure and Homogeneity Theory of ORANI-G Production Structure Lunch Theory of ORANI-G model
•	9.45am-10am 10am – 11.30am 11.30am - 12.30am 12.30pm - 1.30pm 1.30pm – 2.30pm	Morning tea Lab: Closure and Homogeneity Theory of ORANI-G Production Structure Lunch Theory of ORANI-G model More Production Structure; output mix
•	9.45am-10am 10am – 11.30am 11.30am - 12.30am 12.30pm - 1.30pm 1.30pm – 2.30pm 2.30pm - 4pm	Morning tea Lab: Closure and Homogeneity Theory of ORANI-G Production Structure Lunch Theory of ORANI-G model More Production Structure; output mix Lab: Wage cut simulation
•	9.45am-10am 10am – 11.30am 11.30am - 12.30am 12.30pm - 1.30pm 1.30pm – 2.30pm 2.30pm - 4pm 4pm –4.30pm	Morning tea Lab: Closure and Homogeneity Theory of ORANI-G Production Structure Lunch Theory of ORANI-G model More Production Structure; output mix Lab: Wage cut simulation Afternoon tea

Wednesday 13 May	8.45am – 9.45am 9.45am-10am 10am – 11.00am 11.00am – 12.30pm 12.30pm - 1.30pm 1.30pm – 2.30pm 2.30pm - 4pm 4pm –4.30pm 4.30pm – 5.30pm 5.30pm 7pm	Wage Cut Discussion (industry results) Morning tea Theory of ORANI-G model Export/Local Mix; capital creation Lab: AnalyseGE and Tariff simulation 1 Lunch Theoretical Structure of ORANIG Household Demands Lab: Tariff simulation 2 Afternoon tea Theory of ORANI-G model Other Final Demands, market clearing Lab: Adding equations to model
Thursday 14 May	8.45am – 9.45am 9.45am-10am 10.15am – 11.15am 11.15am – 11.30am 11.30am – 12.30pm 12.30pm - 1.30pm 1.30pm – 2.30pm 2.30pm – 4pm 4pm –4.30pm 4.30pm – 7.00pm	Theoretical Structure of ORANIG Purchasers prices and Macros Morning tea Theoretical Structure of ORANIG Investment and Labour market Official Photo Theory of ORANI-G Explaining results, closure Lunch Regional Extension to ORANI-G Group Projects, Allocation and Computing Afternoon tea Group Projects Computing and Analysis
Friday 15 May	8.45am – 9.45am 9.45am-10am 10am – 12.00am 12am – 4.00pm 12.30pm - 1.30pm 4pm – 4.30pm	Group projects Morning tea Preparing reports on Group Projects Presentation of Reports on ORANIG Simulations Lunch Course Wrap-up

3. Organizers and lecturers

The Centre of Policy Studies (CoPS), part of the Monash University Faculty of Business and Economics, is a unquestionable leader in computable general equilibrium (CGE) modeling worldwide. CoPS undertakes academic/contract research and software development, conducts training courses in CGE modelling and offers graduate student supervision. CoPS has taken its modelling techniques overseas, completing projects in South Africa, Brazil, Taiwan, Thailand, China and other countries. MONASH-USA, a 500 industry dynamic computable general

equilibrium model of the US economy, is being developed in collaboration with the US International Trade Commission. A simpler single-country model called ORANI-G has been created as a pattern on which to base models of other countries. CoPS modelling relies on the GEMPACK software, developed at the unit, and used in over 400 other locations in 60 countries. More at the CoPS website: http://www.monash.edu.au/policy/index.htm

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 Institutes provides inter-disciplinary approach to the rural and agricultural policy. Researchers from the Institute cooperate with the Centre of Policy Studies, Monash University and develop the CGE model for Poland based on the GEMPACK software.



Mark Horridge, GEMPACK Lecturer. Professor and Director GEMPACK software, Centre of Policy Studies, Faculty of Business and Economics, Monash University.

Mark Horridge about himself: "Since coming to Monash, I have originated the <u>MMRF</u> and <u>TERM</u> many-region single-country CGE models and contributed to the development of <u>MONASH</u>. I have also created a unified database which underlies all three models. As a CGE evangelist, I have assisted groups in a number of Pacific Rim countries to construct their own GE models. Some of that work is described <u>here</u>.

I have also built a number of Windows programs to assist GE modellers in their work, of which <u>ViewHAR</u> and <u>RunGTAP</u> are perhaps the most widely known. In 2007, my emphasis shifted further in that direction; I now lead the <u>team</u> behind the <u>GEMPACK</u> software, developed over many years by Ken Pearson and others". More information can be download from Monash University website: http://www.monash.edu.au/policy/jmh.htm



James Giesecke, GEMPACK Lecturer.

Senior Research Fellow, Center of Policy Studies, University of Monash. Holds Ph.D. in Economics from the University of Adelaide. His research interests include CGE Modelling and Regional economics. Dr Giesecke has an extensive teaching and consultancy experience.

More information can be download from Monash University website:

http://www.monash.edu.au/policy/staff.htm

4. Course fees and 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 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

ABN: 12 377614012

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

Please email the following information back to <u>Joanna.Binienda@irwirpan.waw.pl</u> when the money has been transferred. Please note your registration will not be finalised 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: Joanna Binienda, Project Officer, jbinienda@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 and 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

5. Accommodation

The Palace of Staszic, main building of the Polish Academy of Sciences is located in the strict city center. It is only 5 minute walk from the Old Town, 3 minute walk from Warsaw University, and 8 minute walk from the metro station. There are several accommodations both exclusive and economic class in this area. Bookings can be made directly with the hotels/residences or through popular online systems (i.e. 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.

Hotels within a 10 minute walk of the Palace of Staszic

Name of the hotel	Contact	Short description
Le Royal Meridien Bristol Standard: Arabara Rooms: 205 Average price: 200-240 Euro / night	Krakowskie Przedmiescie 42/44 00-325 Warsaw Telephone: (+ 48 22) 551 1000 E-mail: bristol@lemeridien.com Internet: www.lemeridien.pl	Luxury and stylish 5 star hotel combining 19th Century charm and atmosphere with 21st century amenities. Located on the prestigious Royal Route, the hotel is next to the Presidental Palace, half way from the Old Town and 10 minutes walk from the Palace of Staszic.
Hotel Gromada Standard: AAAA Rooms: 320 Average price: 86 EUR / night	Address: Pl. Powstanców Warszawy 2 00-030 Warsaw	Hotel Gromada is 7 minutes from the Palace of Staszic along the Swietokrzystka Street. The hotel is close to Zgoda street – famous of a great variety of restaurants and bars. Visiting the Wedel Chocolate shop and café is a must – you can see it on the left of the hotel. Breakfast included.

Hotel Mazowiecki

Standard: 🚓



Rooms: 56 Average price: 65 EUR / night Address: ul. Mazowiecka 10 00-048 Warszawa

Telephones: (+48 22) 827 23 65 (+48 22) 687 91 17

E-mail: recepcja.mazowiecki@hotelewam.pl

Internet: www.mazowiecki.com.pl

Mazowiecki Hotel is a tourist complex, placed 5 minutes from the Palace of Staszic.

Reasonable price, excellent location.
Convenient for those who enjoy jazz – one of the most fancy jazz clubs in Warsaw is located in the basement of the same building.

Breakfast included.

Hotel Harenda

Standard: 😘



Rooms: 43 Average price: 90 EUR / night Address:

Krakowskie Przedmiescie 4/6 00-333 Warszawa

Telephones: (+48 22) 826 00 71 fax: (+48 22) 826 26 25

E-mail: rezerwacja@hotelharenda.com.pl

Internet: www.hotelharenda.com.pl

The Harenda Hotel is located in the immediate vicinity (just in the opposite) of the Palace of Staszic. Guests staying in the hotel can enjoy the Royal Route, which is the most presentable street in Warsaw. A walk along that street can be compared to a trip through centuries, a trip which thrills and enchants by the spell of palaces, churches, borough houses as well as government offices.

Very good breakfast served in the morning (included in the hotel price).

Weekend discounts available.

Hotel Logos

Standard: 🌣



86 rooms

Average price: 58 EUR

Address: Wybrzeże Kościuszkowskie 31/33 Str. 00-379 Warszawa

Telephones tel. (+ 48) 22 622 55 62 tel. (+ 48) 22 622 89 92 tel./fax (+ 48) 22 625 51 85

Internet:

http://www.hotellogos.pl

The economic class hotel - Logos Hotel is perfectly situated perched on the left bank of the Vistula River, with nice view on the river and easy access to the Old Town. Those who prefer to walk can go upward the Tamka Street for about 10 minutes to reach the Palace of Staszic. Those who avoid bold streets can take a bus and leave it on the next stop. Very friendly and helpful staff.

Other accommodation within a 10 minute walk of the Palace of Staszic

Name of the accommodation	Contact	Short description
The Zgoda Apartments Rooms: 51 Average price: 90 EUR Breakfast: 10 EUR	Address: Zgoda 6 Str. 00-018 Warszawa Tel.: (+48 22)553 62 00 (+48 22)553 61 00 fax: (+48 22)827 10 44 e-mail: apartamenty@dipservice.com.pl Internet: www.apartamenty-zgoda.pl	The Zgoda Apartments is located only 10 minutes walk from the Palace of Staszic, near the Palace of Culture and Science and shopping arcades of Chmielna and Nowy Swiat streets. Located at Zgoda street – famous of a great variety of restaurants and bars. Close to the Traffic Bookstore – one of the largest stores in Warsaw based in historical building. It is worth to go there for a cup of coffee and to view the recent worldwide CD albums and DVDs.

Oki Doki Hostel



Rooms: 37
Average price:
60 EUR double room
15 EUR bed in dormitory room

Address: Pl. Dabrowskiego 3

Tel. (+48 22) 826 51 12 Fax. (+48 22) 826 83 57

E-mail: okidoki@okidoki.pl

Internet:

www.okidoki.pl

On a quiet square just off one of the main streets in the heart of Warsaw, you can enjoy affordable and uniquely designed rooms at the Oki Doki Hostel. The hostel is only 10 minutes from the Palace of Staszic along the Swietokrzyska Str. In 2006 it was awarded the

This friendly and secure hostel offers you completely soundproofed double, triple and dorm rooms. The rooms have all been designed by different artists, and have been given names that reflect their specific style. All guests have access to a fully equipped kitchen, comfortable lounges with free Wi-Fi and the hostel's own pub.

Old Town Apartments



Rooms: 30

Average price:

90 EUR / night

Address:

Rynek Starego Miasta St. 12/14 00-272 Warsaw

Tel. (+48 22) 351 22 60

E-mail: warsaw@bookaa.net

Internet:

www.warsawhotel.com

Old Town Apartments has an excellent selection of 1and 2-bedroom apartments, as well as studios. They are all located in the nicest and most central areas of Warsaw, and most of them are housed in charming, monumental buildings. Enjoy all the comforts of a home, including a fully equipped kitchen and a comfortable living room, combined with the independence and privacy only an apartment can offer you.

When choosing a place you want to stay in please ask for the apartment close to the Palace of Staszic at Nowy Świat 72 Str.

Castle In



Average price: 50-60 EUR (breakfast not included)

21 rooms

Address: 2 Świętojańska Str. 00-288 Warszawa

tel.+48 22 425 01 00 fax.+48 22 635 04 25

castleinn@castleinn.pl

Internet: www.castleinn.pl

Castle Inn is an elegant and arty little boutique accommodation in The Old Town. 10 minutes walking from the Palace of Staszic. 10 meters to The Royal Castle, in the one of a few historical buildings which survived II World War. Every room has a unforgettable view on the beautiful square with its Column of the king Sigismond III. From some of the room you can see the castle or the cathedral.

6. Visa and 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:

 $\underline{\text{http://www.msz.gov.pl/Countries,which,citizens,are,not,required,to,have,a,visa,when,entering,Poland,2347.html}$