# DYNAMIC GENERAL EQUILIBRIUM MODELLING COURSE BEIJING, China 16 - 20 December 2015

# Conducted by Centre of Policy Studies (CoPS), Victoria University

## And hosted by School of International Trade and Economics, University of International Business and Economics (UIBE)

#### **COURSE INFORMATION**

For inquires, contact: Xiujian Peng (<u>xiujian.peng@vu.edu.au</u>) Jun Yang (<u>yjydy.ccap@igsnrr.ac.cn</u>)

#### Summary

The Centre of Policy Studies (CoPS) at Victoria University, Melbourne, Australia offers a five-day intensive course introducing participants to a dynamic computable general equilibrium model (CGE) of the Chinese economy - CHINAGEM model and to the GEMPACK software. The course will be hosted by the School of International Trade and Economics, University of International Business and Economics (UIBE) during 16-20 December 2015. The course will be lectured in English with tutoring available in Mandarin during computer sessions. The key instructors of this course are Professor Philip Adams, Professor Mark Horridge and Dr Xiujian Peng.

Course participants will use an aggregated version of the CHINAGEM model of the Chinse economy. CHINAGEM is a 137-sector dynamic model developed by CoPS. It has been used by many institutes and organizations to analyse current economic, social, and environmental issues in China. CHINAGEM is designed for four modes of analysis:

- *Historical*, where we estimate changes in technology and consumer preferences;
- *Decomposition*, where we explain periods of economic history in terms of driving factors such as changes in technology and consumer preferences;
- *Forecast*, where we derive basecase forecasts for the macro economy and industries that are consistent with trends from historical simulations and with available expert opinions; and
- *Policy*, where we derive deviations from basecase forecast paths caused by assumed policies.

Participants will be introduced to the GEMPACK software. **GEMPACK** (General Equilibrium Modelling PACKage) developed by CoPS, is a suite of economic modelling software. It is especially suitable for computable general equilibrium models, but can handle a wide range

of economic behaviour. Today GEMPACK software is used in more than 400 organisations in over 60 countries around the world.

## **Rationale for the Dynamic GE Modelling Course**

The course should appeal to

- those needing work with, or understand results from, a typical dynamic CGE model like CHINAGEM;
- those wishing to use the theory of dynamic CGE model with GEMPACK as the basis for a model of a country other than China;
- those wishing to get sufficient background in order to learn about multi-regional, multi-country, dynamic and/or forecasting models; and
- those wishing to learn the art of applying CGE modelling for practical policy purposes.

## **Course Outline**

The course aims to introduce participants to the ideas and techniques of dynamic CGE modelling, and to equip them to start using, adapting or constructing CGE models for their own simulations. The course offers in-depth training in the following aspects of dynamic modelling:

- the theory underlying the CHINAGEM;
- how to use different types of closures to gain insights into how the Chinese economy evolves over time and the economic and social effects of various policy and other exogenous changes;
- the data requirements of a typical dynamic CGE model;
- formulating exogenous scenarios;
- computing simulations for policy analysis using RunDynam (software for running dynamic models);
- interpreting and reporting results using Back-Of-The-Envelop (BOTE) model technique.

The course program will consist of lectures integrated with extensive hands-on experience with GEMPACK and RunDynam using CHINAGEM model. The course will cover theory, computation, application and result interpretation. Participants in this course will need to bring their own notebook computer (for notebook requirements, see http://www.copsmodels.com/laptops.htm).

## **Documentation and Software**

Course participants receive course materials containing

- a textbook for the course Dynamic General Equilibrium Modelling for Forecasting and Policy by P.B. Dixon and M.T. Rimmer (North-Holland, 2002).
- course notes and lecture slides;
- exercises to be completed in computing sessions;
- documentation of CHINAGEM model and the aggregated model data;
- instructions for installing and using GEMPACK and RunDynam.

Each participant will receive a CD, containing

- an Executable-Image version of the latest GEMPACK software which will allow them to run RunDynam on any modern Windows PC;
- PDF files containing the complete GEMPACK and RunDynam documentation;
- an individual GEMPACK and RunDynam licence for the above software valid for 6 months;
- all computer files needed to run a training-course version dynamic model of China;

## **Assumed Background**

The course will be of most benefit to people with some familiarity with CGE modelling. For example, it would be an advantage to have completed one of the introductory GE courses such as CoPS' Practical GE course or the GTAP introductory course.

## **Preparing for the course**

For those participants who have not attended CoPS' training course, we suggest you study some material prior to the course. Download and work through the MINIMAL course material (http://www.copsmodels.com/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 ORANI-G page (http://www.copsmodels.com/oranig.htm);
- download and experiment with the free Demonstration Version of GEMPACK (http://www.copsmodels.com/gpdemo.htm)

## **Course Fees Beijing 2015**

The training course charge is **AU**\$2500 per person.

The fee covers lectures, computing sessions, course materials (including software), morning and afternoon teas, and one course dinner. It does not cover accommodation, or other meals.

## Venue and Accommodation

#### **Course Venue:**

School of International Trade and Economics, University of International Business and Economics (UIBE) No.10, Huixin Eastern Street, Chaoyang District, Beijing, 100029

#### Accommodation

For information regarding accommodation near the course venue contact:

#### Jun Yang

Professor, School of International Trade and Economics, University of International Business and Economics (UIBE) No.10, Huixin Eastern Street, Chaoyang District, Beijing, 100029 Tel: +86 18513399037 Email: yangguohua0809@163.com



# DYNAMIC GENERAL EQUILIBRIUM MODELLING COURSE BEIJING, China 16 - 20 December 2015

Conducted by Centre of Policy Studies, Victoria University

# **COURSE REGISTRATION**

Attention: Xiujian Peng (<u>Xiujian.Peng@vu.edu.au</u>) Please copy email to: Louise Pinchen (<u>Louise.Pinchen@vu.edu.au</u>) and Jun Yang (<u>yiydy.ccap@igsnrr.ac.cn</u>)

Centre of Policy Studies, Victoria University, 300 Flinders St PO Box 14428 Melbourne, Victoria 8001,Australia Fax: (from overseas) +61 3 9919 1108 (within Australia) 03 9919 1108

### PLEASE PRINT CLEARLY

NAME:							
ORGANISATION:							
ADDRESS:							
PHONE AND FAX:							
EMAIL:							
Course fee	AUD/RMB						
Pay via credit card – AUD only							
$\Box$ Pay via electronic funds transfer to VU's Australia bank at Melbourne (AUD or RMB)							
$\Box$ Pay via electronic funds transfer to VU's China bank at Shanghai (AUD or RMB)							

□ Pay by cash (AUD only)

#### If you wish to pay via credit card, please complete the details below.

EXPORT SALE (GST FREE) SUBCODE	:		COPSTRAEX 602-80-003-1401	(tick if customer is outsic	le Australia)			
PLEASE COMPLETE THE FOLLOWING PAYMENT DETAILS: Enter Credit Card Details below (Note: AMEX/Diners Cards are not accepted by VU operators/agents)								
Tick appropriate box	VISA	[		MASTERCARD				
NAME OF CARDHOLDER:								
SIGNATURE of CARDHOLDER:								
AMOUNT: \$	_EXPIF	RY DA	ATE: /					
CREDIT CARD NO:					**			
CVV (security) NO:								

(NOTE: VU is responsible for ensuring that all their operators/agents who process credit card payments comply with the 'PCI Data Security Standard Requirements'. All operators/agents must securely store/process payment as soon as possible and then dispose/shred any credit card number details immediately after the transaction has been approved)

\*\*Note: (dispose/shred credit card number details immediately after the transaction has been approved) We will acknowledge receipt of your payments details by email. If you don't receive an acknowledgement within 3 working days please contact us immediately. We will also send your paper receipt by mail to the address you give above.



# Victoria University Bank Details

For Training Course Registration

Name: Bank Name: BSB: Account Number: SWIFT Code: IBAN:	Victoria University National Australia Bank 083-004 62-191-9124 NATAAU3303M 330 Collins Street, Melbourne, Victoria, Australia 3000						
Address:							
IBAN:	083004621919124						
DUNS:	754127298						
EXPORT SALE (GST FREE) SUBCODE	: □	COPSTRAEX	(tick if customer is outside Australia)				

\*\*Clients are to quote the Subcode and Client Name in the payment description and send payment advice to

Louise.Pinchen@VU.edu.au

Cc to: Xiujian.peng@vu.edu.au

VICTORIA UNIVERSITY ABN 83776954731 CRICOS Provider No. 00124K



# Victoria University's China Bank Details

# For Training Course Registration

Name: Bank Name: Account Number: Account Type: SWIFT Code: RMB Local Clearing No.: RMB CNAPS No.:

Victoria University ANZ NRA28945400001CNY NRA RMB Basic Account ANZBCNSH 404294 761290013606

\*\*Clients are to send payment advice to

Louise.Pinchen@VU.edu.au

Cc to: Xiujian.Peng@VU.edu.au

VICTORIA UNIVERSITY ABN 83776954731 CRICOS Provider No. 00124K