

# Scottish Government/ESRC Co-Funded PhD Scholarship with Prof J. Malley and Dr K. Angelopoulos

## **“Growth and Inequality: A Dynamic General Equilibrium Analysis of Scotland and the U.K.”**

Professor James Malley and Dr Konstantinos Angelopoulos (Economics, Adam Smith Business School) have been awarded a prestigious Scottish Government/ESRC Co-Funded Scholarship for the above project.

The aim of this project is to analyse the role of fiscal policy in affecting income inequality and the macro-economy when the socio-political structure also matters for economic decision-making. The quantitative analysis will concentrate on the Scottish and U.K. economies. In addition to the academic interest in such work, the Scottish Government wishes to interact with the research team as the research progresses allowing the successful applicant to have valuable access to economic policy makers throughout their period of study. The successful applicant is expected to collaborate with the Scottish Government, and will also have the opportunity to work within the Scottish Government during the course of their research.

### **Project Outline**

#### Aims

The rise in inequality in wages, income and wealth in recent decades has been well documented in the data. Moreover, socio-economic mobility (both across generations and in business cycle frequencies) has been pervasively low in both Scotland and the U.K. As a result of the rise in inequality and its deleterious implications for the welfare of a large part of the population, governments, policy-makers and societies at large are paying increasing attention to better understanding its causes and consequences. The literature to date has attempted to identify and quantify the sources of economic inequality at the aggregate level, focusing on the role of initial conditions, idiosyncratic risk, access to education, heterogeneity in preferences, technological development, aggregate fluctuations and labour market characteristics. The quantitative implementation of macroeconomic models of inequality has been predominantly for the U.S.

The aim of this project is first to contribute towards quantifying the importance of social and economic factors in determining inequality, occupational choice and the associated job mobility. Social rigidities and the resulting immobility have a pervasive effect in that they act to propagate the effects of economic inequality over time and across the socio-political system. The second aim is to investigate the role of economic policy and, in particular fiscal policy. Of particular importance is the need to identify policy interventions that can alleviate income disparities without jeopardising economic growth and aggregate economic efficiency.

#### Methodology

To quantify the importance of socio-economic factors in determining macro-inequality and to evaluate competing economic policies with respect to both economic efficiency and fairness in income distribution, the above features will be incorporated in dynamic general equilibrium (DGE) models. The models will be designed to take into account the importance of the socio-economic factors that are empirically relevant and will be calibrated accordingly. This highlights the importance of systematically analysing the economic and social data, along with the relevant literature, to inform modelling and calibration. An important part of the project relates to collecting, collating and analysing the relevant data and, in particular, isolating available information on socio-economic inequality for Scotland. The work on data will be supported by the Scottish Government.

#### **Profile of the student**

The successful applicant, in addition to working with the data, should expect to contribute to developing and solving macroeconomic DGE models with heterogeneous agents, including, as appropriate, models with incomplete insurance markets and/or other relevant market failures,

overlapping generations models, and/or models for business cycle analysis. The expectation is that the PhD student will have received, before commencing the PhD, a solid training in Economics and research methods at the taught postgraduate level, with an emphasis on micro-founded macroeconomic analysis, including the appropriate economic theory and mathematical and quantitative methods. A background that includes training on computational methods will also be helpful. The student should expect to work during her/his PhD to improve her/his knowledge base and skill set, as required, under the guidance of the supervisory team. Opportunities for relevant training also exist via courses and training offered by the University of Glasgow and SGSSS-DTC.

### **Award**

The scholarship will run for 3 years and covers a PhD student stipend at the Research Council recommended rate, which is £14,057 for 2015/16. It will also cover tuition fees (there are no restrictions on the nationality of the scholar). In addition the scholarship holder can obtain financial support for research training (£750 per year, subject to SGSSS-DTC approval).

### *Application procedure*

Applicants are required to make two applications: one for a place of study for a PhD in Economics at the University of Glasgow; the second application is for the studentship. **Both applications must be complete by 17:00, Monday 11th May 2015.** The typical entry date for a PhD student in Economics is September 2015.

### *Application for the studentship*

All applicants should complete and collate the following documentation then attach to a single email and send to Hannah Engleman at ([hannah.engleman@glasgow.ac.uk](mailto:hannah.engleman@glasgow.ac.uk)) by 17:00, 11<sup>th</sup> May 2015:

- Covering letter
- A research proposal (maximum 1200 words) explaining why you wish to undertake this doctoral research while expanding on the Project Outline above, including ideas of your own.
- Curriculum Vitae
- Names and contacts of two academic referees.
- Full academic transcript(s) from previous studies (undergraduate and postgraduate).

### *PhD application*

In addition, applicants should make a formal application for a PhD place at the University of Glasgow. Guidance on how to apply for a research degree and a link to the online application system can be found at:

<http://www.gla.ac.uk/research/opportunities/howtoapplyforaresearchdegree/#d.en.6790>

The same documents can be used in support of both the scholarship and admission applications but should be submitted separately i.e. scholarship application documents emailed to Hannah Engleman at ([hannah.engleman@glasgow.ac.uk](mailto:hannah.engleman@glasgow.ac.uk)) and admission application documents uploaded via the online application system.

In the first instance, please contact Professor Jim Malley or Dr. Konstantinos Angelopoulos to enquire about applying for this scholarship at [jim.malley@glasgow.ac.uk](mailto:jim.malley@glasgow.ac.uk) or [konstantinos.angelopoulos@glasgow.ac.uk](mailto:konstantinos.angelopoulos@glasgow.ac.uk). Hannah Engleman the administrative contact for Economics PhD programmes and can answer initial programme enquiries. Hannah can be contacted by email to Hannah Engleman at ([hannah.engleman@glasgow.ac.uk](mailto:hannah.engleman@glasgow.ac.uk)) or by telephone to +44 (0)141 330 5683.

The selected candidate will also need to be approved by the Scottish Graduate School-Doctoral Training Centre (<http://www.socsciscotland.ac.uk/>) although applicants do not need to contact them directly.