# School of Economics, University of Surrey April 18th - April 21st, 2023

# Macroeconomic Modelling and Policy

TAMON ASONUMA

IMF

tasonuma@imf.org

HYUNGSEOK JOO UNIVERSITY OF SURREY h.joo@surrey.ac.uk

RIGAS OIKONOMOU

U. CATHOLIQUE LOUVAIN AND U. SURREY rigas.oikonomou@gmail.com KJETIL STORESLETTEN

U. MINNESOTA AND U. SURREY k.storesletten@surrey.ac.uk

KIRILL SHAKHNOV UNIVERSITY OF SURREY k.shakhnov@surrey.ac.uk VYTAUTAS VALAITIS

UNIVERSITY OF SURREY vytautas.valaitis@eui.eu

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## 1 Introduction

The Centre for International Macroeconomic Studies (CIMS) in the School of Economics, University of Surrey, will run a 4-day Course on Macroeconomic Modelling and Policy, 18-21 April, 2023.

The Course is aimed at MSc, MRes and PhD students, early researchers, and research staff from central banks, ministries and the private sector, all with some prior experience of macroeconomic modelling. Its contents differ from the CIMS summer school's, which is usually held in September. The Easter school is focused on a shorter list of themes, some of which not commonly found in summer schools offered by most Economics departments.

A basic prior knowledge of Matlab will help.

This year the Easter school will cover optimal fiscal policy and computational methods (taught by R. Oikonomou and V. Valaitis), inequality in incomplete markets (taught by K. Storesletten), topics in sovereign debt and default (taught by H. Joo, K. Shakhnov and T. Asonuma).

Profiles for the instructors and details of the Courses are as follows.

### 2 Instructors

Tamon Asonuma is an Economist in the Strategy Policy and Review Department of the IMF. Since joining the IMF in September 2010, he has spent most of times in Research Department and Strategy Policy and Review Department. During his time in the Strategy Review and Policy Department, he has contributed to series of the IMF Policy Papers on sovereign debt restructurings and IMF lending and involving in many debt restructuring cases as an expert. In Research Department, he has worked on research papers on costs of sovereign debt restructurings, fiscal policy, sovereign debt overhang and maturity and haircut structure of sovereign debt. He was a visiting researcher at Federal Reserve Bank of Chicago, Minneapolis, and Richmond, Boston University, and University of Munich. He holds a PhD in Economics from Boston University and his research interests are in macroeconomics, international finance, and public finance. He is particularly interested in sovereign debt and financial crises, and exchange rate regime. He has published in several academic journals including the Journal of the European Economic Association and Journal of International Economics. For further details of publications see https://sites.google.com/site/tamonasonuma/

**Hyungseok Joo** is a Lecturer in the School of Economics at the University of Surrey. He graduated from the Yonsei University (Seoul, South Korea). He then completed masters degree in Economics at University of Wisconsin, then he worked as a research analyst in tax and public finance area in a research institution in Korea. In 2015, he completed his PhD in Economics at Boston University, USA. He taught at the Wayne State University, USA, before being appointed as a Lecturer at the University of Surrey in 2019. His research fields are macroeconomics, international macro/finance, fiscal policy, and money and banking. For further details of publications see https://sites.google.com/site/hsjoo214

**Rigas Oikonomou** is professor of economics at the University of Louvain and faculty member at the University of Surrey. He completed his PhD at the London School of Economics in 2010. Prior to joining Louvain and Surrey he worked at the London Business School, the HEC Montreal and the Universitat Autonoma Barcelona. Rigas works on various topics in theoretical and applied Macroeconomics. His research has been published in journals such as the Review of Economic Studies, the Economic Journal and the Journal of Economic Dynamics and Control. For further details see:

https://sites.google.com/site/rigasoikonomou/research

**Kirill Shakhnov** is a Lecturer in the School of Economics at the University of Surrey. In 2015, he completed his Ph.D. in Economics at European University Institute, Italy. He then held the Foscolo Europe Fellowship position at the Einaudi Institute for Economics and Finance and taught at LUISS University, before being appointed as a Lecturer at the University of Surrey in 2019. Kirill's primary research interests lie in the fields of international macroeconomics with a focus on sovereign bond markets and cryptocurrencies. The research is organized around three related topics: asset pricing of internationally traded assets, public finance, and the sources of macroeconomic fluctuations. For further details, please see https://sites.google.com/site/kshakhnov.

**Kjetil Storesletten** is a professor of economics at University of Minnesota and a Vice-Chancellor's Fellow at the University of Surrey. He obtained a PhD in economics at Carnegie Mellon University in 1995. He has been a Monetary Advisor at Minneapolis Fed, associate professor at Stockholm University (IIES), and professor at University of Oslo.

He has served as managing editor of the Review of Economic Studies and as chairman of the same journal. He has also been a member of the Norwegian Executive Monetary Policy Committee. He has held an Advanced Grant from the European Research Council and in 2012 he received the Sun Yefang Award. Storesletten's work has appeared in all top journals in economics and he is a Fellow of Econometric Society.

**Vytautas Valaitis** is a macroeconomist with a research focus on labour markets and optimal fiscal policy. His work on the intersection of macro and labor economics studies how household labour market outcomes and their labour supply choices affect the macroeconomic dynamics and change the implications for government policies. His work on optimal fiscal policy studies the optimal mix of fiscal and monetary policies when government can borrow in multiple types of debt instruments. Vytautas holds a Ph.D. from Duke University and prior to that he studied at the Central European University in Budapest and the ISM University of Management and Economics in Vilnius. He was a Max Weber Fellow at the European University Institute before joining the University of Surrey as a lecturer in the Fall 2022.

# 3 Time-Table (Time Zone: GMT)

Time-table is as follows:

#### Tuesday 18th April

10.00 am - 11.30 am: Session 1
11.30 am - 12.00 pm: Break
12.00 pm - 01.00 pm: Session 2
01.00 pm - 02.30 pm: Break
02.30 pm - 04.00 pm: Session 3
04.00 pm - 04.30 pm: Break
04.30 pm - 06.00 pm: Session 4

#### Wednesday 19th April

10.00 am - 11.30 am: Session 1 11.30 am - 12.00 pm: Break 12.00 pm - 01.00 pm: Session 2
01.00 pm - 02.30 pm: Break
02.30 pm - 04.00 pm: Session 3
04.00 pm - 04.30 pm: Break
04.30 pm - 06.00 pm: Session 4

#### Thursday 20th April

 $09.30~\mathrm{am}$  -  $11.00~\mathrm{am}$ : Session 1

 $11.00~\mathrm{am}$  -  $11.30~\mathrm{am}$ : Break

- 11.30 am 01.00 pm: Session 2
- 01.00 am 02.00 pm: Break
- 02.00 pm 03.30 pm: Session 3
- 03.30 pm 16.00 pm: Break
- $16.00~\mathrm{pm}$   $17.30~\mathrm{pm}$  : Session 4

#### Friday 21st April

09.30 am - 11.00 am: Session 1 11.00 am - 11.30 am: Break

- $11.30~\mathrm{am}$   $01.00~\mathrm{pm}$ : Session 2
- 01.00 am 02.00 pm: Break
- 02.00 pm 03.30 pm: Session 3
- 03.30 pm 16.00 pm: Break
- 16.00 pm 17.00 pm: Session 4

# 4 Course Contents

The contents of lectures given by the instructors over the four days are as follows:

#### • Optimal fiscal policy and computational methods (Day 1 and 2)

Lectured by Rigas Oikonomou and Vytautas Valaitis

- Optimal fiscal policy under complete financial markets and solution algorithms
- Numerical Methods for optimal fiscal policy under complete financial markets
- Optimal fiscal policy under incomplete financial markets
- Numerical Methods for optimal fiscal policy under incomplete financial markets
- Optimal Government Portfolios
- Numerical Methods for optimal government portfolio
- Inequality and risk-sharing in models with incomplete markets (Day 3 & 4)

Lectured by Kjetil Storesletten

- Inequality under complete markets (Chatterjee 1994)

- The standard incomplete market model (Aiyagari 1994, Constantinides and Duffie 1996)

- Measuring risk sharing (Blundell, Preston, and Pistaferri 2008)

- How much insurance in the standard incomplete market model? (Kaplan and Violante 2010)

- Incomplete markets with labor supply - an analytical approach (Heathcote, Storesletten, and Violante 2014)

- How should tax progressivity respond to rising inequality? (Heathcote, Storesletten, and Violante 2020)

#### • Topics in Sovereign Debt and Default (Day 3 & 4)

Lectured by Hyungseok Joo, Kirill Shakhnov, Tamon Asonuma

- Traditional sovereign debt model

- An introduction to quantitative sovereign default model

- Long term duration bond model
- Self-fulfilling debt model
- Quantitative properties of sovereign default models
- Sovereign debt restructurings
- Sovereign debt and fiscal policy