

The Centre for **Microsimulation and Policy** Analysis is based at the Institute for Social and **Economic Research at the** University of Essex.

Our research on distributional issues, from tax and benefit systems to family, gender, health, wellbeing and population change, is focused around two tools that we have developed over the years and that we offer open source to the scientific community, with a wide range of models and applications: the static microsimulation platform EUROMOD, now jointly developed with the European Commission, and the dynamic microsimulation platform JAS-mine. Together, they cover all areas in microsimulation, from tax-benefit to dynamic microsimulation and agentbased modelling.

We are a team of economists, sociologists and political scientists who focus on integrating tax-benefit and dynamic microsimulation models to study the distributional and aggregate consequences of public policies in light of population and economic change, within a life course perspective. Follow us on Twitter @CeMPAEsssex.

www.microsimulation.ac.uk







# CeMPA celebrates its first anniversary - and a year of Covid-19 impact analysis

This newsletter marks the first anniversary of the Centre for Microsimulation and Policy Analysis, created in June 2020 as a University of Essex centre, based on the very successful EUROMOD experience

This year has obviously been characterised by Covid-19 to avoid repetition, which meant, as we all know, work disruptions and personal difficulties in keeping a healthy workfamily balance for many of us.

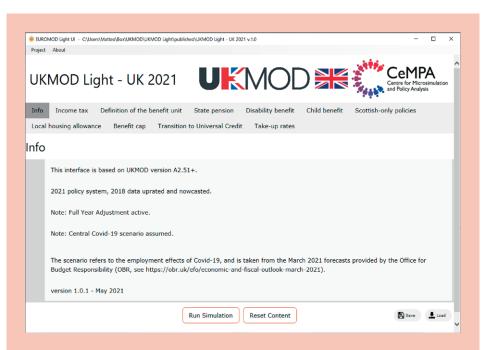
It also meant a lot of additional work, with pressure to produce timely analyses on the effects of Covid-19 and the related emergency policy measures on income distribution, in the UK and in other countries. Early in May 2020, we were amongst the first to come up with estimates of the economic impact of the first lockdown, and its effects on poverty and inequality in the UK. Our result that the robust policy response put in place by the UK Government was indeed quite effective in protecting incomes, and even allowed for improvements for the poorest deciles due to the increased generosity of Universal Credit and other measures, was met with interest and surprise, and was later confirmed by other studies, both from our own researchers and other institutions. Since then we have been improving our nowcasting methodology, looking at the effects of Covid-19 on outcomes other than socio-economic status (in particular: mental health, in a project funded by the Health Foundation), and embedding our results in dynamic models that allow us to simulate individual outcomes over a longer time period, to understand the effects in the longer run.

This work complemented other new and ongoing projects, including completing the transition of the maintenance,

update and development of the EU-27 EUROMOD models to the European Commission. After more than 20 years hosting the EUROMOD project at ISER, it is particularly touching to see it being formally adopted by the EC, with a direct involvement of the Joint Research Centre and Eurostat. EUROMOD however goes beyond the models for the EU member states, being first and uppermost a platform, language and template for tax-benefit modelling. We continue to be involved in helping institutions worldwide to develop EUROMOD-based models for their countries, from A (Argentina) to Z (Zambia), and work closely with the United Nations University (UNU-Wider) on modelling the effects of Covid-19 in developing countries.

Also, we continue to develop UKMOD, the improved and extended model originating from the UK component of EUROMOD and currently the only freely accessible tax-benefit model for the UK and its constituent nations. UKMOD is now in its third year of existence and – thanks to the support of the Nuffield Foundation – well established with a growing number of users in academia, public institutions and think tanks.An example of the lively community around UKMOD is the workshop on Universal Basic Income (UBI) that we co-organised with the Women's Budget Group in late April, where we discussed different options of UBI and how they can be implemented in UKMOD. We are also currently working with the Greater London Authority (GLA) for analysing the effects on Londoners of Covid-19 and different scenarios for a post-covid welfare reconfiguration, while supporting the Scottish Parliament Information Centre (SPICe) and the Welsh and Scottish Governments, amongst other institutions, in their own internal use of UKMOD. Overall, we have been involved in more than 20 different projects in this year, winning new research grants for over £2M. We published 12 CeMPA Working Papers, the new series for the over 40 CeMPA affiliates, and 28 EUROMOD Working Papers. We have also been busy in organising online training and research events, as we document in this newsletter.

We worked hard this year, at a difficult time but with the usual energy and a great joy of being part of a challenging but also rewarding research effort, building a new, international home for microsimulation studies to advance the state of the art in the field and improve policy design and lives in the UK and globally.



# **UKMOD** now available in different flavours - with the next release coming later this year

UKMOD version A2.5+ was released in April 2021 and the next release of the model is planned for late 2021

The current version has policies updated to take into account the spring 2021 budget announcements, has nowcasting of employment status updated to December 2020 data to take into account the recent developments of the Covid-19 crisis, and it comes with updated single-year and multi-year datasets, and EUROMOD software engine upgraded to version 3.4.0. To obtain it, please see the **UKMOD** Access page.

The next release will include a new wave of the input data, and revised policies to incorporate the next budget announcements.

We also produced simplified interfaces for the UK, Scotland, Wales, England and Northern Ireland for the 2021 policy system. These simplified interfaces (see screenshot above), labelled **UKMOD Light**, are freely available to registered users. They use intuitive web forms to allow changing some key parameters of the tax-benefit system (income tax schedule, state pensions, disability benefits, child benefits, local housing allowance, benefit caps) as well as some key assumptions on transition to Universal Credit and take-up rates, for the UK as a whole and in each of the four constituent nations.

UKMOD then runs in the background, and produces a number of statistics on the fiscal and distributional impact of the reform for the selected region. Users can also save the complete output micro-data, for further analyses, as well as save all the implemented reforms for future reference.

We are in the process of making UKMOD Light also available online. This version will allow users to specify their own scenarios and run the simulations online, without having to install anything locally and without the need to have access to the input data. The online version, labelled **UKMOD Explore**, will be accessible from August 2021 from www.microsimulation.ac.uk/ukmod/ukmodexplore. Check it out!



# Assessing the role of tax-benefit policies in mitigating the distributional effects of **COVID-19** in the Andean region

#### The COVID-19 pandemic has resulted in an international crisis with large socioeconomic impacts

According to projections from the Economic Commission for Latin America and the Caribbean (ECLAC), by the end of 2020 poverty could have increased by 4.4 percentage points on average and extreme poverty by 2.5 percentage

Governments in Latin America have implemented a variety of measures to mitigate the impact of the crisis, which has also highlighted the lack of social protection for vulnerable populations in the event of economic shocks.

In this context, CeMPA researchers, Dr. H. Xavier Jara and Dr. Diego Collado, are leading an international team of researchers to assess the role of tax and benefit policies in mitigating the adverse effects of the Covid-19 pandemic on poverty and inequality in three countries in the Andean region: Colombia, Ecuador and Peru. The partner institutions are Universidad Externado de Colombia, Pontificia Universidad Católica del Ecuador (PUCE) and Universidad del Pacífico, Perú.

The project will make use of tax-benefit microsimulation models for the countries under analysis, which have been developed at ISER or under the supervision of ISER researchers in collaboration with local teams. All models are based on the EUROMOD software.

The current models for Colombia, Ecuador and Peru allow researchers to simulate income taxes, social insurance contributions and cash transfers based on representative household survey data. The cross-country analysis will take advantage of the harmonised nature of the models and data to compare which type of policy interventions have been the most effective in protecting the population against the economic effects of the pandemic and will assess potential reforms to tax-benefit policies aimed at enhancing social protection.

The analysis will make use of detailed household survey data prior to the pandemic and nowcasting techniques to derive Covid-19 scenarios at the point when the economy was hit the hardest in the countries under analysis (second guarter of 2020) and at the end of 2020. Decomposition techniques will be used to quantify the distributional effects of: (i) formal and informal earnings losses due to Covid-19, (ii) pre-crisis tax-benefit policies (i.e. automatic stabilisers), and (iii) covid-related tax-benefit measures implemented by the Government.

The results of the project will be discussed at policy workshops with key government institutions and the wider community in each country.

## Research into Covid-19 and financial hardship in London

Diego Collado, Daria Popova and Matteo Richiardi look at the impact of the Covid-19 pandemic and the Government policy response on the income distribution and poverty in London and in the UK

In this project, commissioned by the Greater London Authority, the CeMPA researchers also evaluate a number of scenarios of hypothetical policy reforms, such as the continuation of the £20 a week uplift in Universal Credit (UC) and Working Tax credit (WTC), removal of the benefit cap and introduction of basic income, among others. They use UKMOD and the 2018-2019 FRS data to nowcast precovid and post-covid changes in the income distribution in London and the UK.

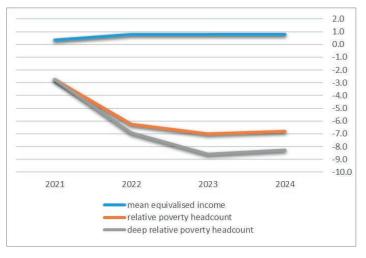
In particular, the results show that in 2020 in London average disposable incomes (before housing costs) dropped by 3% compared to 2019. At the same time, the results highlight the high progressivity of changes in household disposable incomes, with the bottom half of the income distribution in London benefiting due to the combined impact of the Covid-19 crisis and the anticrisis government response, and the top decile experiencing a 10 percent reduction in their disposable incomes (see figure 1).

The analysis of hypothetical scenarios, in particular, shows that prolonging the £20 a week uplift in UC and WTC would reduce the poverty rate (measured as share of the population with incomes below 60% of the national median) in London by 3% in 2021 and by 6-7% in 2022-2024. The effect gets stronger over time, and even more so for deep relative poverty rate (measured as share of the population with incomes below 50% of the relative poverty line) as UC is meant to gradually replace legacy benefits.

Figure 1 Changes in mean equivalised disposable income (before housing costs) by decile, 2019-2020



Figure 2 Changes in mean incomes and poverty headcounts (after housing costs) due to the continuation of the £20 a week uplift in UC and WTC, London





## **MEET THE TEAM OUR RESEARCH AFFILIATES**

## **Professor Sheri Markose**

Sheri Markose has a PhD from London School of Economics and since 2006 has been a Professor of Economics at University of Essex

### Could you tell us about your professional background?

In the early 2000s, long before it was flavour of the day to study the digital economy, as testament to the ethos at University of Essex of supporting multi-disciplinary studies, I received the go ahead from the Senate to set up the Centre for Computational Finance and Economic Agents (CCFEA) with the Computer Science Department. Over nine years as Director of CCFEA, I pioneered a research-led multi-disciplinary curriculum covering agent based computational economics, finance and complexity sciences. The research was supported by an EC grant.

From 2011-2014. I was Senior Consultant at the Financial Stability Unit of the Reserve Bank of India where I headed the project for the digital mapping of the Indian financial system for systemic risk management.

In 2013, I was an academic advisor to the G20 OTC Derivatives Reforms. In 2017 I gave an assessment of the reforms for the Banque de France Financial Stability Review. This work received the 2017 Eubank Prize from the Rice University (USA): 'For integrative synthesis and data driven leadership toward understanding systemic risk in global financial markets'.

Recent publications on digital foundations of genomic intelligence based on my longstanding interest in the foundational work of Gödel-Turing-Post have led to my appointment in 2017 as an Associate Editor of Frontiers Computational Intelligence: AI and Robotics.

### What are your research interests?

My research interests span computational financial network and agent-based modelling, risk modelling using extreme value theory, Financial Technology, and the foundations of computational intelligence to model novelty production in Complex Adaptive Systems.

I have developed large-scale, data-driven financial network software models primarily for financial contagion tracking and systemic risk management. The original contribution here is an analogue R-number from epidemic models for early warning of tipping points in a financial contagion. The first agent-based model I developed was on smart markets for traffic congestion and the most recent one, published in JEBO, was on why UK banks do not lend to the real economy in the post Quantitative Easing era. I have developed models for cashlessness, which is currently being extended for modelling cryptocurrencies.

**††** My research interests span computational financial network and agent-based modelling, risk modelling using extreme value theory, Financial Technology, and the foundations of computational intelligence to model novelty production in Complex Adaptive Systems **††** 

Recent grants include one on Mainstreaming Financial Inclusion and FinTech in the context UK-India trade in financial technology services. A paper on 'Financial Inclusion, At What Cost?: Quantification of Economic Viability of A Supply Side Roll Out', was published in 2020 in the European Journal of Finance.

New publications on the digital foundations of intelligence and a Nash Equilibrium with novelty production led to two Keynote talks in 2019 at the Bio-Inspired ICT (BICT) conference at Carnegie Mellon University and at the C3 Complexity Symposium of the University of Sydney.

### How did you get involved with CeMPA?

Matteo Richiardi and I share similar perspectives on using granular agent based and micro-simulation for economic modelling and policy analyses. So, when Matteo became Director of CeMPA, we met for coffee to discuss how I could be involved with the Centre. We are looking to develop computational data driven granular models that include spatial and demographic aspects of the UK economy.

### What future do you see for the Centre?

CeMPA has a great future building on the successful spin offs from the Euromod microsimulation models. The numerous research links that CeMPA has developed will expand the scope and applications of microsimulation modelling.

### Anything else you would like to share?

I would like to take this opportunity to wish CeMPA all the best for the future!



## **Forecasting recovery** from COVID-19 using financial data: an application to Vietnam

In a new paper, Matteo Richiardi and Jesse Lastunen (UNU-Wider) propose a method for making projections on the economic recovery from Covid-19 shock, starting from industry-level GDP data that are at often a few months old

Projections involve updating the data to the present time (known as 'nowcasting'), and then further extending it to the future.

Their idea is to exploit the expectations implicit in financial markets, for which data are available in real time. If the value of stocks depend on future profits, and future profits depend on future production levels, then it is possible to reverse-engineer expectations about the duration of the slump, by industry, based on the amount of the losses in industry-levels stock market indexes.

The first 'if' is quite uncontroversial. The second 'if' is more problematic and in general unwarranted. However, the size of the Covid-19 shock, with large and unexpected drops in both the demand for goods and services and the ability of firms to provide them, suggests that it can hold, at least to a first approximation. Figure 1 shows different hypothetical expectations of recovery trajectories for a given initial contraction in output. Some are faster, some are slower.

Under the assumptions discussed above the cumulative output losses (the grey area in the figure, for one possible trajectory) is directly related to the financial losses. The initial contraction is observed in the industry-level GDP data, typically some months old. Financial data up to the present are used to estimate the slope of the recovery trajectory, which can then be used to nowcast the data and extend it to the future, under some additional assumption about the shape of those trajectories (negative exponential in the figure).

The method works better for small exporting countries, as their stock markets depend less on national subsidies and more on international demand. Richiardi and Lastunen applied this method to Vietnam, ranked eighth in the world for trade openness (after Luxembourg, Hong Kong, Singapore, San Marino, Djibouti, Malta, and Ireland). Their projections are shown in

The projections are more optimistic than those obtained by the International Monetary Fund and other international forecasters, using much more complicated models. As it turns out, the projections using this simple method are also closer to the realised figures (the blue dots in the figure).

The claim of the paper is that this better-than-expected performance was visible in stock market data early on but was largely missed by conventional methods.



Figure 1 Different hypothetical expectations of recovery trajectories for a given initial contraction in output

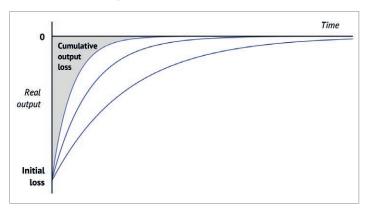
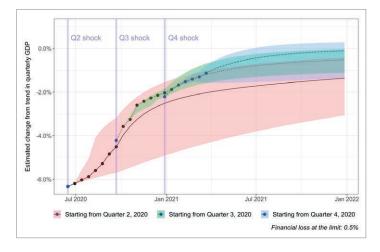


Figure 2 Recovery trajectory: full economy





### **UKMOD USER FOCUS**

## Scottish Parliament's Information Centre (SPICe)

SPICe provides impartial research and analytical support to all Members of the Scottish Parliament (MSPs) across the full spectrum of policy areas

SPICe publishes briefings and blogs and also prepares briefing notes for Parliamentary Committees. But a lot of SPICe's work is 'behind the scenes', providing confidential enquiry responses to MSPs and their staff to support them in their Parliamentary work. This can be in relation to Parliamentary debates, constituent enquiries or policy development.

With the devolution of income tax and social security powers that has taken place since the Scotland Act 2016, SPICe has used UKMOD (and previously, EUROMOD) to provide analysis for MSPs in relation to questions around the use of income tax powers and changes in social security benefits. Two particular areas have been of substantial interest to MSPs:

Exploring the impact of changes to income tax policy since 2017-18, Scottish income tax policy has diverged from the policy in the rest of the UK. UKMOD has allowed SPICe to consider the revenue implications of a wide range of alternative income tax policies and also to look at the distributional impact of alternative policies. In the run up to the annual Scottish budget, demand in this area is particularly high as MSPs consider alternative income tax proposals and, in one year, SPICe costed around 40 alternative income tax policies. Much

**††** UKMOD has been an invaluable tool in enabling SPICe to answer a wide range of enquiries and provide research support to the Scottish Parliament 👬

of this work is unpublished as it is undertaken on a confidential basis for MSPs to inform their policy proposals and inform the budget debate.

Analysing the impact of policies designed to reduce child **poverty** – the Scottish Government has set statutory targets for the reduction of child poverty and has recently introduced a new benefit (the Scottish Child Payment) aimed at supporting progress in this area. SPICe has used UKMOD extensively to look at the impact of both existing and proposed policy measures. Some of this work has been published recently in a SPICe briefing on the Scottish Child Payment, and summarised in this blog post.

UKMOD has been an invaluable tool in enabling SPICe to answer a wide range of enquiries and provide research support to the Scottish Parliament.





## Training and events roundup

#### **UKMOD** training

We ran a successful UKMOD training course on 14-16 April, with around 25 participants from a varied background.

The slides and recording from the course are available on our Moodle pages, which are accessible from the training section of our website. The next course will be organised in the fall. If you are interested, please fill our online form and you will be contacted when the dates are finalised.

#### Basic income workshop

Funded by the Nuffield Foundation and co-organised by CeMPA and the Women's Budget Group, we hosted an online workshop on basic income (30 April), structured around a panel session, followed by a course where participants were taught how to implement different basic income schemes using UKMOD.

The panel comprised Sara Reis (Women's Budget Group), Nick Pearce (IPR, University of Bath), Malcolm Torry (Citizen's Basic Income Trust & LSE), Jamie Cook (RSA) and Howard Reed (Landman Economics), and chaired by Matteo Richiardi. The panellists discussed principles and stated purposes of a basic income scheme; its appeal for the UK also in light of the Covid-19 crisis; how can effective schemes be implemented and how they would interact with the other parts of the UK tax and benefit system; and the politics of basic income, also with respect to devolution.

The slides and recording of the workshop are available from the training section of our website. A paper by Jerome De Henau, Susan Himmelweit and Sara Reis is also available in the CeMPA WP series, discussing different options for implementing basic income schemes in UKMOD.

### **EUROMOD** training

As part of the EC-funded InGRID-2 project, we co-organised with the Centre for Social Policy Herman Deleeck (CSB) at the University of Antwerp a course on advanced EUROMOD uses (17-19 May).

The first session of the course was on policy extensions, where the results from two projects aimed at extending EUROMOD to include wealth policies and indirect taxation, respectively, were presented. The second session was on nowcasting the effects of Covid-19, with one presentation from the Joint Research Centre (JRC) and one presentation where we presented our own work on comparing monthly and yearly nowcasting. The third and final session was on new functions and tools developed for EUROMOD, including the Hypothetical Household Tool (HoT), advanced switches and the new online interfaces developed at CeMPA. Each session was followed by an interactive Q&A where participants had the opportunity to discuss more technical issues.

#### **IFS-CeMPA Workshop**

On 2 June we hosted a small workshop with researchers from the Institute for Fiscal Studies (IFS), to discuss complementarities in research and methodological issues of

As it is well known, the IFS develops the proprietary TAXBEN microsimulation model, while we develop UKMOD, a freely accessible model for the UK and its constituent nations. In the first session, on income distribution in developed countries, we learned about the work done by the IFS on the impact of the National Living Wage, and presented our framework for simulating entire life course trajectories using the LABsim dynamic microsimulation model. This was followed by a second session on income distribution in developing countries, where our own Xavier Jara presented his work on tax-benefit systems, informal employment and inequality in Latin America, and a third session on microsimulation and Covid-19 data, where we discussed common issues we encounter in our tax-benefit microsimulation work.

### Data forum 'Life course analysis: data and methodological challenges'

This online event took place on 6-7 July, as part of the ECfunded InGRID-2 activities, with contributions of reputed international scholars.

The conference was composed of a first session on intergenerational mobility, with presentations by Jo Blanden (University of Surrey), Jan Stuhler (Universidad Carlos III), Markus Jantti (Stockholm University) and Guido Neidhöfer (ZEW), a second session on cohort and longitudinal data, with presentations by Alex Bryson (UCL), Emanuela Struffolino (University of Milan) and Yekaterina Chzhen (Trinity College Dublin), and a final session on projection methods, with presentations by Gianluca Baio (UCL), Nils Martin Stølen (Statistics Norway) and our own Matteo Richiardi. The slides and recordings of the events will be made available soon from our website.

### **Expert meeting on nowcasting and mid-term** projections through microsimulation models

Our latest event this summer was an online workshop on nowcasting techniques and methods (16 July).

This was also organised as part of the InGRID-2 project, with contributions by Jinjing Li (University of Canberra), Cathal O'Donoghue (NUI Galway), Denisa Sologon (LISER), Chrysa Leventi (Greek Minister of Finance), Aura Leulescu (EUROSTAT) and Matteo Richiardi. The slides and recordings of the events will be made available soon from our website.

#### Fourth ECUAMOD training

As part of the SOUTHMOD project, the fourth training event on the use of ECUAMOD, the tax-benefit microsimulation model for Ecuador, was organized by the national team at FLACSO in collaboration with UNU-WIDER and CeMPA at the University of Essex. Due to the pandemic, the training took place virtually, from to 26 to 30 April 2021.

The training provided an introduction to potential users of ECUAMOD on its components, potential advantages and possible applications. Participants included representatives from a wide spread of government institutions, including the Central Bank and the Bank of the Ecuadorean Social Security Institute, as well as local universities. The latest version of ECUAMOD, ECUAMOD v2.0, including policy years 2011-20 will be available soon. Access to ECUAMOD and other SOUTHMOD models can be requested here.

#### 2021 SOUTHMOD workshop

The annual SOUTHMOD workshop was organised online on 24-25 May 2021, bringing together the representatives from eight different national teams in Africa, Latin America and

#### Asia and the senior partners, the researchers from CeMPA at University of Essex and SASPRI; a total of 35 participants from eleven different countries.

The aim of the workshop was to enhance the collaboration between all SOUTHMOD partners on the use of the tax-benefit models developed as part of the project to understand the impacts of different policy choices. The workshop also provided the opportunity to exchange experiences on recent uses of the models for research and policy analysis, with a particular focus on the work carried out to assess the distributional impact of COVID-19 pandemic in different SOUTHMOD countries.

#### **DWP** Areas of Research Interest workshop

CeMPA was invited to contribute to a workshop held for the UK's Department of Work and Pensions scientific team, profiling new studies to inform their new Areas of Research Interest for the coming years.

The online event in June was curated by the Eastern Arc, a consortium of the Universities of Essex, Kent and East Anglia. The two-day event of research presentations and policy discussions was opened by a talk from CeMPA Director, Professor Matteo Richiardi on New Maps of Economic Insecurity, explaining how CeMPA has developed new measures of economic insecurity based on the uncertainty surrounding future life course trajectories, taking into account individual heterogeneity across multiple domains: age, gender, education, socio-economic status, family composition, health. In order to compute this measure, they have simulated future life course trajectories by means of a rich dynamic microsimulation model, which also allows the investigation of the efficacy of the tax-benefit system to shield people from insecurity.

Katrin Gasior presented on 'The added worker effect as a coping

strategy for everyone? Transitions to activity of inactive ethnic minority women in the UK' looking at 'the added worker effect', whereby couples from ethnic minority backgrounds, who have a disproportionate disadvantage in terms of unemployment, underemployment, and levels of earnings, compensate for a sudden loss of income of one partner (usually the man) by increasing the participation in the labour force by the other partner (usually the woman). The research aims to assess to what extent economic challenging times provide an opportunity for inactive ethnic minority women to re-negotiate work and living arrangements. The analysis uses *Understanding Society* longitudinal data to assess whether transitions from inactivity to activity can be explained by income shocks in the household and the extent to which negotiated living arrangements counterbalance the potential of the added worker effect. Daria Popova presented work with Silvia Avram on 'Intrahousehold inequality and gender impacts of taxes and benefits: UK vs other European countries' - looking at the determinants of gender income inequality, both within and between households, and in particular the role of tax-benefit systems in reducing/enhancing income disparities between men and women, both single and living in couples/multi-person households.

Professor Richairdi said: "The DWP workshop was a superb opportunity to showcase the new work coming out of CeMPA and the relevance of our research to the policy making world. We presented at a similar workshop at the Institute for Social and Economic Research back in 2018 and the relationships and connections we made then have allowed us to get our policyrelevant research evidence right to the heart of Whitehall, We were really pleased to make such a significant contribution to this important Eastern Arc workshop and to profile some of our timely new studies."

## **Latest CeMPA Working Papers**

#### **Modelling Universal Basic Income using UKMOD**

Jerome De Henau, Susan Himmelweit and Sara Reis CeMPA Working Paper Series CEMPA3/21 - Apr 2021

#### **Estimating the distributional impacts of the COVID-19** pandemic and the remedial tax and benefit policies on poverty in Indonesia

Gemma Wright, Michael Noble, Helen Barnes, Ali Moechtar, David McLennan, Arief Anshory Yusuf, Katrin Gasior and Ratnawati Muyanto

CeMPA Working Paper Series CEMPA2/21 - Apr 2021

#### A microsimulation analysis of the distributional impact over the three waves of the COVID-19 crisis in Ireland

Cathal O'Donoghue, Denisa M. Sologon, Iryna Kyzyma and John McHale

CeMPA Working Paper Series CEMPA1/21 - Mar 2021

#### **UKMOD/EUROMOD** country report

Sara Reis, Iva Valentinova Tasseva CeMPA Working Paper Series CEMPA7/20 - Sep 2020

#### Did the UK policy response to Covid-19 protect household incomes?

Mike Brewer and Iva Valentinova Tasseva CeMPA Working Paper Series CEMPA6/20 - Jun 2020

#### The Covid-19 crisis response helps the poor: the distributional and budgetary consequences of the **UK lock-down**

Patryk Bronka, Diego Collado and Matteo Richiardi CeMPA Working Paper Series CEMPA5/20 – Jun 2020

#### **Modelling the distributional impact of the Covid-19** crisis in Ireland

Cathal O'Donoghue, Denisa M. Sologon, Iryna Kyzyma and John McHale

CeMPA Working Paper Series CEMPA4/20 - Jun 2020

#### Welfare resilience in the first month of COVID-19 pandemic in Italy

Francesco Figari and Carlo Fiorio CeMPA Working Paper Series CEMPA3/20 – Jun 2020

#### Measuring economic insecurity: a simulation approach

Matteo Richiardi and Zhechun He CeMPA Working Paper Series CEMPA2/20 - Jun 2020

#### Measuring economic insecurity: a review of the literature

Matteo Richiardi and Zhechun He CeMPA Working Paper Series CEMPA1/20 - Jun 2020

## **Latest EUROMOD Working Papers**

#### The Income Protection Role of an EMUWide **Unemployment Insurance System: the Case of Atypical Workers**

Holguer Xavier Jara Tamayo and Agathe Simon EUROMOD Working Paper Series EM6/21 - May 2021

#### **Modelling Universal Basic Income using UKMOD**

Jerome De Henau, Susan Himmelweit and Sara Reis EUROMOD Working Paper Series EM5/21 - Apr 2021

#### Welfare resilience at the onset of the COVID-19 pandemic in a selection of European countries: impact on public finance and household incomes

Olga Cantó Sánchez, Francesco Figari, Carlo Fiorio, Sarah Kuypers, Sarah Marchal, Marina Romaguera de la Cruz, Iva Valentinova Tasseva and Gerlinde Verbist EUROMOD Working Paper Series EM4/21 - Feb 2021

#### **Universal Independence Income. A EUROMOD Utopian** Simulation in the UK

Franco Bonomi Bezzo EUROMOD Working Paper Series EM3/21 - Feb 2021

#### **Effects of Tax-Benefit Policy Changes across the Income** Distributions of the EU-27 Countries and the UK: 2019-2020

**EUROMOD** 

EUROMOD Working Paper Series EM2/21 - Jan 2021

#### **Baseline results from the EU28 EUROMOD:** 2017-2020

Diego Collado, Nicolo Framarin, Katrin Gasior, Holguer Xavier Jara Tamayo, Chrysa Leventi, Kostas Manios, Daria Popova and Iva Valentinova Tasseva

EUROMOD Working Paper Series EM1/21 - Jan 2021

#### Joint Taxation in Spain and its Effects on Social **Welfare: a Microsimulation Analysis**

Nuria Badenes-Plá, Patricia Blanco Palmero, Borja Gambau-Suelves, María Navas Román and Noemí Villazán Pellejero EUROMOD Working Paper Series EM23/20 - Dec 2020

#### The New "Minimum Vital Income" in Spain: **Distributional and Poverty Effects in the Presence and Absence of Regional Minimum Income Schemes**

Nuria Badenes-Plá and Borja Gambau-Suelves EUROMOD Working Paper Series EM22/20 - Dec 2020

#### Living with Reduced Income: an Analysis of **Household Financial Vulnerability Under COVID-19**

Catarina Midões and Mateo Seré EUROMOD Working Paper Series EM21/20 - Dec 2020

## **Baseline Results from the EU28 EUROMOD:**

Jack Kneeshaw, Paola De Agostini, Kakia Chatsiou, Katrin Gasior, Holguer Xavier Jara Tamayo, Chrysa Leventi, Kostas Manios, Alari Paulus, Daria Popova and Iva Valentinova Tasseva

EUROMOD Working Paper Series EM20/20 - Dec 2020

#### Fiscal Consolidation and Automatic Stabilization: **New Results**

Mathias Dolls, Clemens Fuest, Andreas Peichl and Christian Wittneben

EUROMOD Working Paper Series EM19/20 - Dec 2020

#### Size, heterogeneity and distributional effects of selfemployment income tax evasion in Italy

Martina Bazzoli, Paolo Di Caro, Francesco Figari, Carlo V. Fiorio and Marco Manzo

EUROMOD Working Paper Series EM18/20 - Dec 2020

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