EUROMOD NEWS

The tax-benefit microsimulation model for the European Union

EUROMOD is a tax-benefit microsimulation model for the European Union (EU) that enables researchers and policy analysts to calculate, in a comparable manner, the effects of taxes and benefits on household incomes and work incentives for the population of each country and for the EU as a whole.

As well as calculating the effects of actual policies it is also used to evaluate the effects of tax-benefit policy reforms and other changes on poverty, inequality, incentives and government budgets.

EUROMOD is a unique resource for cross-national research, designed to produce results that are comparable across countries and meaningful when aggregated to the EU level.

EUROMOD is managed, maintained, developed and updated by the **Microsimulation Unit**, a team of researchers in ISER. ● This is done in collaboration with national experts. ●

The current version of EUROMOD represents the accumulation of technical developments and expertise over a number years and involving a large team of people. For more information on the design and development of EUROMOD click here. ●

www.iser.essex.ac.uk/euromod

International Journal of Microsimulation celebrates EUROMOD-27

The editor of the International Journal of Microsimulation (IJM), Gijs Dekkers, and the guest editors, ISER economists Francesco Figari and Iva Valentinova Tasseva, are pleased to announce that the spring special issue of IJM (Volume 6, Issue 1, Spring 2013) has been now published, celebrating the launch of the new release of EUROMOD, the European Union tax-benefit microsimulation model.

The papers included in the special issue were presented at the 2nd Microsimulation Research Workshop in October 2012, organised by the Institute for Social and Economic Research (University of Essex) and hosted by the National Research Institute for Labour and Social Protection in Bucharest, Romania. Research findings based for the first time on EUROMOD covering all 27 European Member States are presented.

The issue also looks at the importance and implications of choosing a certain input data for microsimulation and at the solutions of different data issues. Finally, analysis on the redistributive policy effects and work incentives is presented based on EUROMOD spin-off models for Russia and Serbia.

The new issue is available to download here. ●

Who pays for fiscal consolidation?

Governments across the Western world have brought in fiscal consolidation measures to tackle budget deficits. But how is the burden shared across households?

New EUROMOD research suggests that in several countries the better-off are contributing a larger proportion of their incomes – but that is not the case everywhere. While virtually all households have been affected by cut-backs and tax rises, in a number of European countries the measures have reduced the incomes of the poorest by a smaller proportion compared to the incomes of the richest households. Researchers based at the Institute of Social and Economic Research in collaboration with national experts from Greece and Romania (RO), looked at the effects of tax rises, cuts in cash benefits and in public sector pay, in nine EU countries which included the Southern European countries, the Baltic countries, Romania and the UK. *Continued on next page*

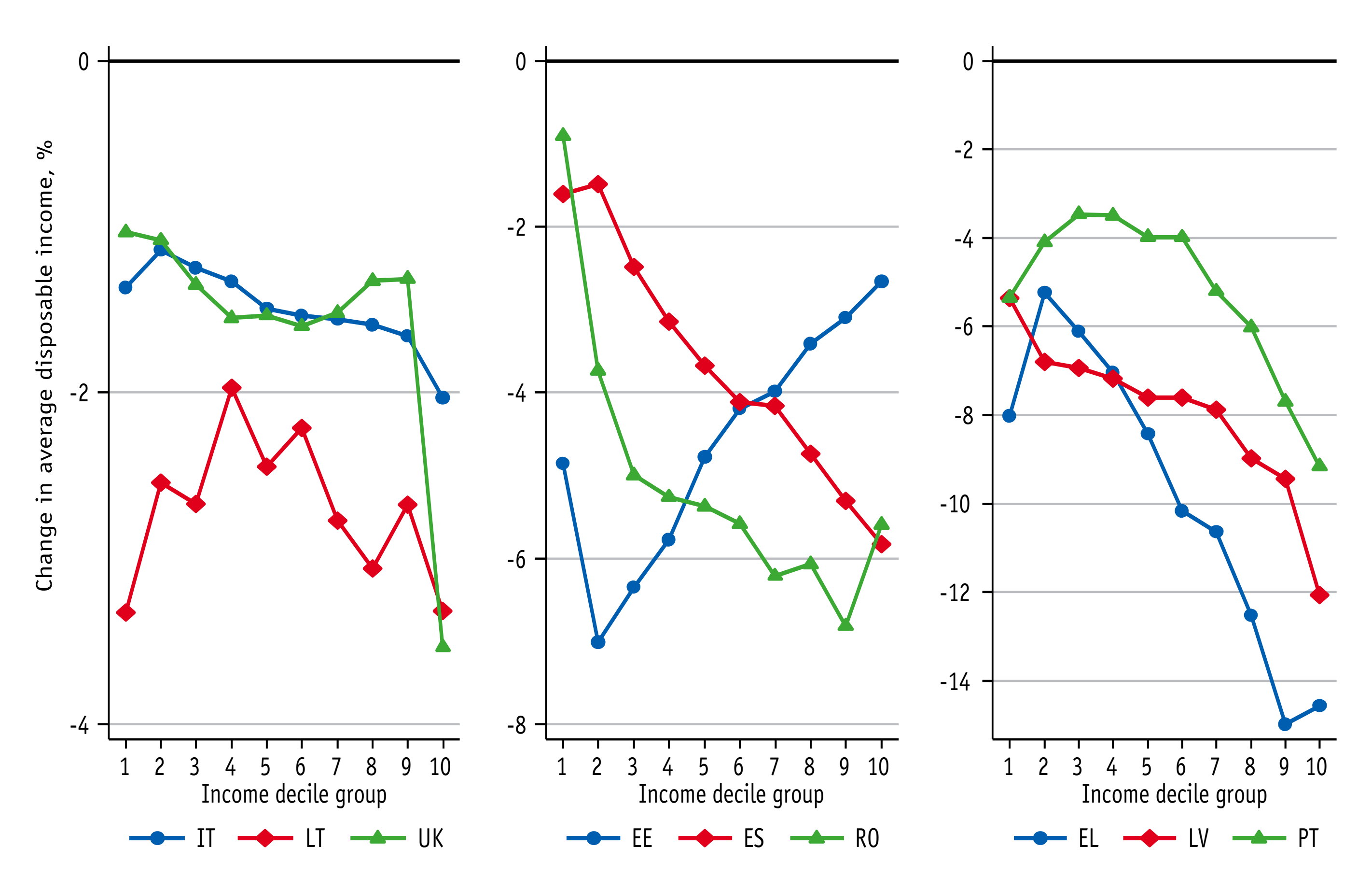


Figure 1: Percentage change in household disposable income due to simulated household income-based fiscal consolidation measures by household income decile group

From previous page Focussing on policy changes introduced up to mid-2012 they found that the worst-hit households were in Greece, where family incomes dropped on average by 11.6 per cent due to the consolidation measures alone, and Latvia, where the fall was 9.1 per cent. Households in Italy and the UK experienced the smallest average decreases in their income, ranging between 1-2%.

They also found that fiscal consolidation measures had broadly a progressive nature in the two thirds of the countries, i.e. income losses in relative terms were higher for richer decile groups (see the Figure). However, in Greece (EL) and Italy (IT), it was the low-middle decile groups which suffered least rather than the bottom decile group, and the progressivity in the UK was primarily achieved with a much stronger impact in the top decile. In Lithuania (LT) and Portugal (PT), meanwhile, the burden fell most heavily on those with middle incomes. Estonia (EE) was the only country in the analysis which revealed a clearly regressive impact, although households in the bottom decile group were partly protected.

The types of measures taken to cut budget deficits, the size and the character of their effects varied from country to country. For instance, cuts in public sector wages had a greater impact on better-off households, especially in Greece, Latvia and Portugal, while cuts in public pensions and cash benefits affected more often low and middle income groups, most notably in Estonia and Portugal. Income tax and social insurance contribution increases had a major effect in Greece, burdening most the poorest and the richest. The latter measures were also aimed at the better-off in Spain and the UK, while being relatively neutral in other countries. Up to mid-2012 the UK provides an example where fiscal consolidation measures were particularly targeted at the top part of the income distribution.

There were no systematic differences between various types of households across countries. For example, households with elderly people faced much smaller income losses compared to households with children in Lithuania and the UK, while it was the opposite in Romania and also but to a lesser extent in Estonia, Italy and Portugal.

The research also looked at the effects of rises in Value Added Tax (VAT). In all the nine countries in the study, the effect of VAT increases was regressive – that is, it had a greater effect on those with lower incomes than it did on the better-off. This reduces the extent to which richer households contribute more in relative terms, achieved through measures directly affecting household incomes, and in some countries, like Italy and Lithuania, even reversing that effect.

The analysis includes changes up to the middle of 2012 – in some countries further changes have been announced or introduced since, or are planned for the future.

The Distributional Effects of Fiscal Consolidation in Nine Countries by Silvia Avram, Francesco Figari, Chrysa Leventi, Horacio Levy, Jekaterina Navicke, Manos Matsaganis, Eva Militaru, Alari Paulus, Olga Rastrigina and Holly Sutherland, was published as a EUROMOD Working Paper 2/13 ● and the study was carried out for the Social Situation Observatory. ●

Cypriot austerity measures hit middle and higher income families

The pre-bailout austerity measures implemented in Cyprus were both mild and directed more at middle and higher income families rather than the poor. However, the ability of the government to cut social expenditure and or raise taxes while protecting the poor is likely to be limited post-bailout, according to a new EUROMOD study.

Austerity and the Income Distribution: The Case of Cyprus by Christos Koutsampelas and Alexandros Polycarpou of the the Economics Research Centre, University of Cyprus, has found the first round of austerity measures in Cyprus have had more impact on higher and middle income families.

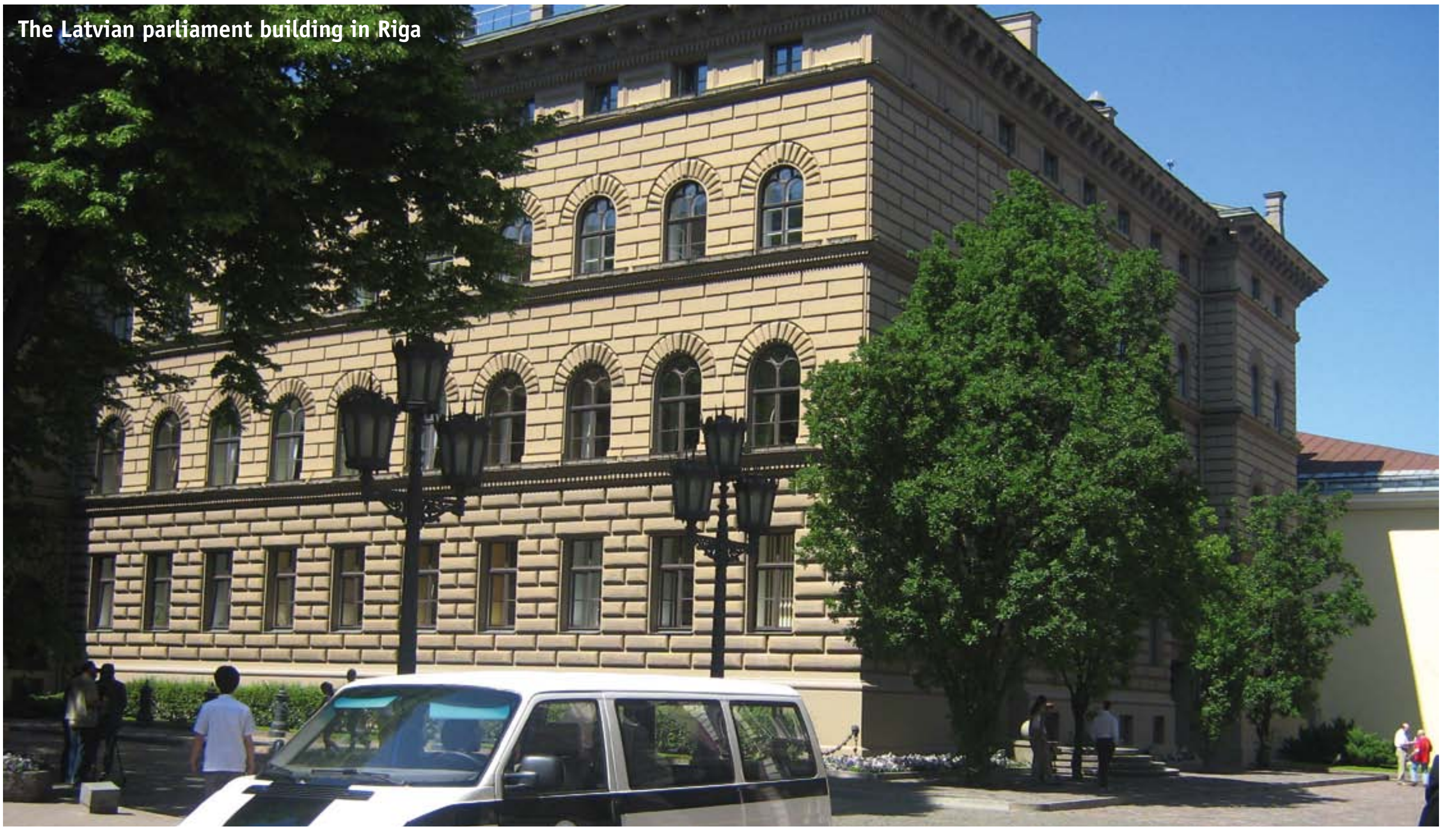
"Up to now, welfare state institutions appear resilient to the first waves of austerity. Benefits cuts were not extensive and designed in progressive fashion. The government even introduced a new social benefit in order to meet the needs of one of the most vulnerable social groups (lone parents). This development overwhelms the negative distributional implications of the child benefit reform while increases considerably the welfare of single parent families. Despite that the the worsening labour market conditions and the increase of unemployment will affect families with children, child poverty is likely to remain at relatively low levels. Elderly poverty is moving downwards but this is only because the income position of the elderly is improving in relative terms. In absolute terms, their economic well-being is likely to decrease. Finally, in-work poverty remains at low levels but most probably will increase in the upcoming years."

Using EUROMOD, the economists were able to study the impact of national austerity measures and estimate the impact of future cuts to welfare. They found that: "The first phase of the austerity era was not marked by shrinkage of the welfare state... ...however the rules of games change rapidly. It is likely that the budgetary constraints will soon exert pressure to the coverage and generosity of social benefits and a further shift from universal benefits to targeted benefits will take place."

Austerity and the Income Distribution: The Case of Cyprus ● is published in the EUROMOD Working Paper series.

Latvian tax and benefit analysis

In Latvia the *Baltic Journal of Economics* (Anna Zasova, Marija Krūmiņa and Olga Rastrigina) contains an article 'The evolution of tax and benefit policy in Latvia: what has been the place of distributional considerations?' ● by Anna Zasova and Marija Krūmiņa, Baltic International Centre for Economic Policy Studies, and Olga Rastrigina, Institute for Social & Economic Research, which, in addition to the impact of the most recent proposed reforms, analyses the distributional impact of austerity measures that were implemented in Latvia in 2008-2012.


The Latvian parliament building in Riga

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Projects using EUROMOD

In each newsletter we highlight a research project that uses EUROMOD. This month, we look at the ImPRovE project.

Several EUROMOD teams are participating in ImPRovE, a project that is financially supported by the European Commission and coordinated by the University of Antwerp.

As part of this project, EUROMOD will be used to analyse policy drivers of poverty outcomes in the past, estimate the impact of the crisis and ensuing austerity measures, as well as to develop budget-neutral policy scenarios for reaching the Europe 2020 poverty reduction target. In addition, it will be used to analyse the distributive effects of childcare in a number of European countries, as well as to evaluate the efficiency and effectiveness of targeted and conditional benefits.

Within ImPRovE, EUROMOD-related analyses are part of a broader research agenda that also includes the development of cross-nationally comparable reference budgets, an in-depth study of local forms of social innovation, and an evaluation of policies aimed at improving the condition of minorities such as the Roma. The two central questions of ImPRovE are:

- How can social cohesion be achieved in Europe?
- How can social innovation complement, reinforce and modify macro-level policies and vice versa?

The ImPRovE project aims at improving the basis for evidence-based policy making in Europe in the area of poverty, inequality, social policy and social innovation in Europe.

In the short term, this is done by carrying out research that is directly relevant for policymakers. At the same time however, ImPRovE invests in improving the long-term capacity for evidence-based policy making by upgrading the available research infrastructure, by combining both applied and fundamental research, and by optimising the information flow of research results to relevant policy makers and the civil society at large.

Among others, the output of ImPRovE will include about 55 research papers and 16 policy briefs. In addition the ImPRovE Consortium will organise two international conferences.

If you would like to be kept informed, you can subscribe to the ImPRovE newsletter ● or follow the project on the ImPRovE website, ● Facebook ● and LinkedIn. ●


The ImPRovE team

Working papers

Impact assessment of alternative reforms of child allowances using RUSMOD – the static tax-benefit microsimulation model for Russia EUROMOD Working Paper Series: EM9/13

Author ● Daria Popova

Abstract RUSMOD is a static tax-benefit microsimulation model for Russia. The model can be used for ex post and ex ante evaluation of reforms of personal income taxation and social benefits in Russia. In addition, being compatible with EUROMOD, the Russian model is suitable for simulation of cross-country policy transfers. The aim of this paper is to shed light on various aspects of the model. It discusses specific problems arising in the evaluation of unreported income and benefits non-take up in Russia. The final estimates of poverty and inequality from RUSMOD are very close to those based on national accounts; hence, the model can be seen as a reliable tool for evaluating the current performance of the Russian tax-benefit system and the distributive impact of potential tax-benefit reforms. Then the paper provides an example of application of the model – an analysis of alternative scenarios for improving the design of child allowances in Russia. Currently, this benefit has a poor targeting performance and varies across regions of Russia in terms of design and generosity, which raises serious equity concerns. Redirecting these resources to the poor – by means of better targeting and raising the benefit amounts – brings about significant improvements in overall and child poverty indicators even at the current level of spending. The most sizable impact on poverty is achieved by implementing the unified national design of the program.

Publication date 28 March 2013

● PAPER DOWNLOAD

EUROMOD: The European Union Tax-Benefit Microsimulation Model EUROMOD Working Paper Series: EM8/13

Authors ● Holly Sutherland
● Francesco Figari

Abstract This paper aims to provide an introduction to the current state of the art of EUROMOD, the European Union tax-benefit microsimulation model. It explains the original motivations for building a multi-country EU-wide model and summarises its current organisation. It provides an overview of

EUROMOD components, covering its policy scope, the input data, the validation process and some technical aspects such as the tax-benefit programming language and the user interface. The paper also reviews some recent applications of EUROMOD and, finally, considers future developments.

Publication date 28 March 2013

● **PAPER DOWNLOAD**

Tax-benefit systems, income distribution and work incentives in the European Union EUROMOD Working Paper Series: EM7/13

Authors ● Holguer Xavier Jara Tamayo
● Alberto Tumino

Abstract In this paper we study the impact of tax-benefit systems on income inequality and work incentives across the 27 Member States of the European Union (EU). Using EUROMOD, the EU-wide taxbenefit microsimulation model, we disentangle the role of taxes, benefits and social insurance contributions in influencing country specific Gini coefficients and Marginal Effective Tax Rates. The extent to which tax-benefit systems contribute to income redistribution and provide work incentives at the intensive margin is found to vary considerably across the 27 Member States of the EU. Our results further highlight the presence of a trade-off between income redistribution and work incentives across EU-27 countries.

Publication date 28 March 2013

● **PAPER DOWNLOAD**

Towards a European Union Child Basic Income? Within and between country effects EUROMOD Working Paper Series: EM6/13

Authors ● Horacio Levy
● Manos Matsaganis
● Holly Sutherland

Abstract This paper explores the within and between country distributional implications of an illustrative Child Basic Income (CBI) operated at EU level. Using EUROMOD, we establish that a universal payment of €50 per month per child aged under 6 could take 800,000 children in this age group out of poverty. It could be financed by an EU flat tax of 0.2% on all household income, assuming that it would also be taxed nationally as income. Most member states and virtually all families with children aged under 6 would be net gainers. We simulate two versions of EU CBI, with the benefit rate of €50 per month adjusted or not for differences in purchasing power between member states. In general, fiscal flows between member states, and also poverty reduction, would be smaller under the adjusted version. The political feasibility of such a scheme might be questioned, especially within the net contributor countries. Nevertheless, for those seeking ways to strengthen solidarity across national boundaries, a scheme supporting the incomes of families with young children, wherever in the EU they might reside 'could be a demonstration of the EU's commitment to children, to the future' (EC 2012a: 62).

Publication date 28 March 2013

● **PAPER DOWNLOAD**

The importance of choosing the data set for tax-benefit analysis EUROMOD Working Paper Series: EM5/13

Authors ● Lidia Ceriani
● Carlo V. Fiorio
● Chiara Gigliarano

Abstract Given the increased availability of survey income data, in this paper we analyse the pros and cons of alternative data sets for static tax-benefit microsimulation in Italy. We focus on all possible alternatives, namely using (a) SHIW or (b) IT-SILC data using a consistent net-to-gross microsimulation model, or IT-SILC© data using the gross incomes provided since 2007. Our results suggest that IT-SILC improves in the regional representativeness of the Italian population and does not perform worse than SHIW as for most demographic characteristics, SHIW provides more information regarding building and real estate incomes. Gross income variables simulated by using the net-to-gross module included in the TABEITA microsimulation model and calibrating for tax evasion provide a very precise fit with external statistics, improving on results which could be obtained using the same TABEITA model on SHIW data. Simulated IT-SILC gross income data fit external aggregate data even better than gross income data provided in IT-SILC, which tend to largely overestimate self-employment income. Finally, we suggest to match IT-SILC with SHIW to include in the former the information on building and real estate incomes that are contained.

Publication date 28 March 2013

● **PAPER DOWNLOAD**

Austerity and the income distribution: the case of Cyprus EUROMOD Working Paper Series: EM4/13

Authors ● Christos Koutsampelas
● Alexandros Polycarpou

Abstract The economic crisis affecting Cyprus is likely to have considerable impact on the income distribution. Our analysis provides an early assessment of the short-run distributional effects of austerity measures. We distinguish between fiscal measures that affect wages, taxes and contribution rates and measures that directly affect the function of the welfare system. Using the tax-benefit EUROMOD model we attempt to quantify the distributional implications of both. The analysis focuses on the policy changes introduced over the period between 2011 and 2012, i.e. before the expected bailout deal between the government of Cyprus and the consortium of international lenders which is expected in spring 2013. Specifically, we simulate the ceteris paribus impact of the reforms on inequality and poverty as well as estimate how the burden of austerity has been shared across income groups.

Publication date 27 March 2013

● **PAPER DOWNLOAD**

Baseline results from the new EU27 EUROMOD (2007-2010) EUROMOD Working Paper Series: EM3/13

Authors ● Holguer Xavier Jara Tamayo
● Holly Sutherland

Abstract This paper provides a description of the latest public release of EUROMOD (version F6.0++), a tax-benefit microsimulation model for the EU. First, we briefly report the process of constructing and updating EUROMOD. We then present indicators for income inequality and risk of poverty using EUROMOD and discuss the main reasons for differences between these and EU-SILC based indicators. We further compare EUROMOD indicators across countries and over time between 2007 and 2010. Finally, we provide estimates of marginal effective tax rates (METR) for all 27 EU countries in order to explore the effect of tax and benefit systems on work incentives at the intensive margin. Throughout we highlight both the potential of EUROMOD as a tool for policy analysis and the caveats that should be borne in mind when using it and interpreting results.

Publication date 5 March 2013

● **PAPER DOWNLOAD**

EUROMOD: introducing the team

In this edition of EUROMOD NEWS, Iva Valentinova Tasseva, Senior Research Officer with the EUROMOD team based at ISER, describes her work.

What is your background?

I grew up in the Black Sea city of Varna, Bulgaria. I studied my undergraduate degree in Germany, where I obtained a B.Sc. in Economics from the University of Mannheim. I then moved to Maastricht in the Netherlands, where I completed an M.Sc. in Public Policy and Human Development from the Maastricht Graduate School of Governance. It was here that I became interested in social transfer systems and their effects on poverty and inequality. I also enjoyed working with a microsimulation model for my masters thesis. I spent a short period collecting information on social protection systems for UNICEF, Innocenti Research Centre in Florence, Italy. Bringing together these interests and experiences, in 2010 I applied for a Senior Research Officer post at ISER.

What are your research interests?

Redistribution and labour supply effects of tax-benefit policies, cross-country comparative research and micro simulation.

Do you have any special responsibilities?

Yes, I'm the chair of the EUROMOD technical meeting.

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Iva Valentinova Tasseva

"...I'm working on a project on decomposing the policy effects of tax-benefit changes on the income distribution in several EU countries preceding and following the crisis, using EUROMOD..."

Which countries do you work on?

I'm interested in research on tax and benefit systems in all countries. As part of my work on building and maintaining EUROMOD, I work on Bulgaria, Austria and Germany. As part of my research, my work focuses on Bulgaria and the European Union.

What are you working on at the moment

I'm working on a project on decomposing the policy effects of tax-benefit changes on the income distribution in several EU countries preceding and following the crisis, using EUROMOD. ● I'm also currently working on my second PhD chapter, where I'm estimating the labour supply and tax compliance effects of a Bulgarian flat tax reform. In the second part of this year, together with colleagues, I'll be implementing 2013 tax-benefit policies in EUROMOD, which will be released to the research and policy community in the summer of 2014.

What do you enjoy most about working with EUROMOD?

Doing applied work in the area of public and labour economics, in particular exciting research on tax-benefit policies in the EU, hence having the freedom and support from colleagues to address relevant and interesting for me research questions; being part of building and maintaining EUROMOD, which especially in some European countries (e.g. Bulgaria) represents the only existing tool for analysis of the redistribution effects of tax-benefit policies at the individual and household level; working among some of the most prominent scholars in economics and sociology in the UK; and – last but not least – being part of such a wonderful international team.

Would you like to share any recent highlights?

Being co-organiser of the second microsimulation research workshop in October 2012 held in Romania; ● acting as guest editor of the special spring issue of the *International Journal of Microsimulation;* ● and presenting a paper at the ImPRovE meeting, 2-3 May 2013, in Urbino, Italy.

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