INTERNATIONAL JOURNAL OF MICROSIMULATION (2016) 9(1) 1-4
INTERNATIONAL MICROSIMULATION ASSOCIATION

Editorial

Matteo Richiardi

Institute for New Economic Thinking, Oxford Martin School, University of Oxford
Walton Well Road
OX2 6ED Oxford, UK
matteo.richiardi@maths.ox.ac.uk

John Cockburn

Partnership for Economic Policy (PEP) and Université Laval
Pavillon J.-A.-DeSève, 1025 avenue des Sciences-Humaines
Québec (Québec) G1V 0A6, CANADA
jcoc@ecn.ulaval.ca

Hélène Maisonnave

EDEHN, Department of Economics, Université du Havre
25 rue Philippe Lebon, 76600 Le Havre, FRANCE and PEP network (www.pep-net.org)
e-mail: hmaisonnave@hotmail.fr

Luca Tiberti

Partnership for Economic Policy (PEP) and Université Laval
Pavillon J.-A.-DeSève, 1025 avenue des Sciences-Humaines
Address Québec (Québec) G1V 0A6, CANADA
e-mail: luca.tiberti@ecn.ulaval.ca

The Spring 2016 issue of the *International Journal of Microsimulation* is a special issue on CGE Microsimulation in Developing Countries, edited by John Cockburn, Hélène Maisonnave and Luca Tiberti. Concern for the distributive impacts of macroeconomic policies in developing countries has been increasing in recent years. Policy debates have focused progressively more on inclusive, or pro-poor, growth and, more broadly, economic and human development through the Millenium Development Goals (2000-2015) and, more recently, the Sustainable Development Goals (2016-2030). In this context, the marriage of computable general equilibrium (CGE) and microsimulation models has become a dynamic area of policy research throughout the developing world.

In developing countries, local researchers, trained and mentored by international experts, possess

a clear comparative advantage in understanding how far-reaching macroeconomic reforms can influence the myriad facets of their economies and, ultimately, determine the micro-economic impacts on households and individuals.

This special issue features six CGE-microsimulation studies of the microeconononomic impacts of a broad range of macro policies applied to the agricultural sector, public education, trade, fiscality and social protection. Five of the six papers are written by teams of local researchers who have benefited from funding, training and mentoring offered by the Partnership for Economic Policy (PEP), which seeks to promote local perspectives in informing national and international debates related to economic policy, poverty, gender and sustainable development.

The issue continues a tradition of interest of the journal towards the combination of micro and macro models, with a first special issue on the topic, edited by Maurizio Bussolo and John Cockburn, published by the journal back in spring 2010. A review article, also focused on developing countries, was published a year earlier (Davies, 2009), while Peichl and Schaefer (2009) describe a combined tax-benefit, CGE model for Germany. Colombo (2010) presents a methodological overview of the main approaches to combined CGE-microsimulation modelling, exemplified on fictitious data. The invited introductory note to this issue, by Andreas Peichl, summarises the key methodological points, with reference to the more recent literature and the development of alternative approaches.

Suggestions for further readings.

Combined CGE-microsimulation papers do not make it to the International Journal of Microsimulation only. They also appear, with regular frequency, in journals like *Economic Modelling.* Debowicz (2016) provides a nice comparison of the behavioural and non-parametric approaches to CGE-microsimulation modelling, where a distinction is made whether the microsimulation component incorporates a parametric behavioural or non-parametric responses. Quite interestingly, he finds that both approaches are consistent with the data, supporting the view that the importance attributed by and large in the economic profession to behavioural responses might be, at least for some applications, overstated. Obviously, whether this is the case or not can be evaluated only ex-post, after having allowed for the more complex feedbacks in the model. Other recent CGE-microsimulation papers also appeared in *Economic Modelling* are Verikios and Zhang (2013, 2015) and Breisinger and Ecker (2014).

On a different note, our Associate Editor Deborah Schofield highlights the opportunity for microsimulation modelling in genomics. Genomics is an emerging field of clinical medicine which moves from the old paradigm of aggregation of diseases into large groups such as cardiovascular disease, often defined as headline disease groups or national health priority areas. This aggregate approach to medicine is rapidly being redefined as our growing understanding of the human genome proves that these large disease groups are, in fact, made up of many much rarer conditions. The field of genomics and personalised medicine will revolutionise modern medicine (Dzau et al, 2015). It also calls for a form of modelling that can capture individual genetic differences and response to therapy - a purpose to which microsimulation is eminently suited. Conversely, the risk of using aggregate models of grouped diseases with crude averaged impacts as inputs can produce highly erroneous results, further confounded if based on assumptions rather than the quality of data microsimulation models typically reply upon (Doble et al., 2015).

References

Breisinger C and Ecker O (2014) 'Simulating economic growth effects on food and nutrition security in Yemen: a new macro–micro modeling approach', *Economic Modelling*, 43, 100-113.

Colombo G (2010) 'Linking CGE and Microsimulation Models: A Comparison of Different Approaches', *International Journal of Microsimulation*, 3(1), 72-91.

Davies J B (2009) 'Combining Microsimulation with CGE and Macro Modelling for Distributional Analysis in Developing and Transition Countries', *International Journal of Microsimulation*, 2(1), 49-65.

Debowicz D (2016) 'Does the microsimulation approach used in macro–micro modelling matter? An application to the distributional effects of capital outflows during Argentina's Currency Board regime', *Economic Modelling*, 54, 591-599.

Doble B, Schofield D J, Roscioli T, Mattick J S (2015) 'The promise of personalised medicine', *The Lancet*, 387(10017), 433-434.

Dzau V J, Ginsburg G S, Van Nuys K, Agus D, Goldman D (2015) 'Aligning incentives to fulfil the promise of personalised medicine', *The Lancet*, 385(9982), 2118-2119.

Peichl A and Schaefer T (2009) 'FiFoSiM - an integrated tax benefit microsimulation and CGE model for Germany', *International Journal of Microsimulation*, 2(1), 1-15.

Verikios G and Zhang X-g (2013) 'Structural change in the Australian electricity industry during the 1990s and the effect on household income distribution: a macro–micro approach', *Economic Modelling*, 32, 564-575.

Verikios G and Zhang X-g (2015) 'Reform of Australian urban transport: A CGEmicrosimulation analysis of the effects on income distribution', *Economic Modelling*, 44, 7-17.