Special issue: Post-Keynesian stock-flow consistent modelling

Editorial to the special issue

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In 2013 a series of three encounters was organised in the University of Burgundy in Dijon (May 2013), in the University of Limerick (August 2013) and at the FMM Conference in Berlin (October 2013) around the Post-Keynesian Stock-Flow Consistent (PK-SFC) approach. The goal of these workshops was, as stated in the first call for papers, to explore all aspects of the modelling technique: empirics, methodology and theory. The final aim of the series of workshops was to allow for the renewal of the political economy frame of thought.

I believe these workshops were a success, gathering dozen of scholars, mainly from Europe but also from Brazil. Furthermore, the workshops allowed for a pluralistic attendance, with scholars belonging to various schools of thought: Post-Keynesian, Schumpeterian, Regulationist, Agent-Based modeller, Structuralist, etc. The convergence of these various approaches was highlighted and the importance of collaboration emerged naturally.

The first workshop, ‘Going Further ... Together’, was organised in Dijon with Mickaël Clévenot from the University of Burgundy and was composed of 17 papers (the program can be found at www.antoinegodin.eu/dijon). The feedback, written in collaboration with Mauro Napoletano, reads as follows:

A wide variety of approaches, methodologies and topics were presented during the workshop, allowing for interesting discussions and exchanges. Clearly, the complementarities of the Stock-Flow Consistent and Agent-Based approaches emerged, even if some were sceptical at first. Furthermore, the topics and issues addressed by models from both methodologies are similar. On the methodology side, SFC and ABM practitioners share issues regarding estimation or the role of expectations. As regards topics, finance, austerity or the construct of the euro zone, and in general policy recommendation, are at the heart of the analysis from both approaches.

This workshop also showed us the importance of getting together and confronting our analysis and results. The need to develop a common language surfaced. This is why we call for more of these gatherings. We hope that the Limerick workshop ... will be as fruitful as the Dijon venue.

The second workshop, ‘Building a common language’, was organised in Limerick with Stephen Kinsella from the University of Limerick, and was composed of 14 papers (the program can be found at <http://www.antoinegodin.eu/limerick>). The workshop targeted more specifically the nexus between the PK-SFC and the Agent-Based approaches. Extracts from the feedback are as follows:

The Limerick SFC workshop, second of a series of three, was aiming at building a common language for Macro-Modelling. After two days of intense debates and exchanges, we can conclude that the goal

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is on its way to being achieved. Indeed, surfing on the outcome of the Dijon gathering, we could get to the core of what is retained as essential for macro modelling. ...

The workshop concluded with a two-hour round table with excellent introductory interventions by M. Napoletano, A. Caiani and G. Zezza. The energy spent during the whole workshop bore fruit: the shape of an ABM–SFC model was designed. The strengths of SFC models (good forecasting results, empirical estimation, strong accounting framework) are combined with the forces of ABM (micro-foundation, heterogeneity, distributional and intra-sectorial aspects). Obviously this hybrid model has to be applied to a topic allowing for a full utilisation of its potential, that is where the ABM side allows for the emergence of a macroeconomic shock feeding back to its micro structure, thanks to the SFC framework.

I believe all participants would agree on the utility of such stimulating workshops where economists from different backgrounds engage in productive collaboration towards a common goal: building better models allowing for a more pervasive understanding of our world.

The series of workshops ended with a couple of parallel sessions organised during the '17th Conference of the Research Network Macroeconomics and Macroeconomic Policies: The Jobs Crisis: Causes, Cures, Constraints' held in Berlin. During the sessions, eight papers of high quality were presented, underlining the vivacity of the literature. This special issue is the result of this series of contacts between researchers sharing their interest in developing a common approach to macro-modelling.

The first paper in this special issue, by Meijers, Muysken and Sleijpen, introduces a very interesting concept, along the lines of those highlighted by Godley's unsustainable processes (Godley 1999), the Dutch deposit financing gap – that is, the difference between total outstanding mortgage and total deposits in the economy. If the deposit gap widens, banks are more dependent on (more expensive) international markets to finance. The authors then build an elegant model, calibrated for the Netherlands, showing how a housing bubble can lead to the emergence of a deposit gap, which depresses economic growth because of its burden on financial institutions. They ultimately show how strict budget deficit rules can hamper further economic growth by weakening the effects of the automatic stabiliser.

The second paper, by Khalil and Kinsella, aims at analysing banks' balance sheet contagion in open economies. In order to do so, the authors build a two-country model with two banks per country, where bank interdependencies are explicitly modelled through the inter-bank credit market. The paper is an interesting step towards the introduction of heterogeneous agents in an otherwise fully aggregated model. Its results highlight the importance of regulation policies of monetary authorities as shocks applied to one bank can easily spread in both economies and impact output and employment via a credit-crunch process.

The third paper, by Caverzasi and Godin, focuses on financialisation and particularly on the growth of financial assets in the balance sheets of non-financial corporations. To do so, the authors combine various theories in order to highlight the shifting of banks' core business from investment financing towards consumption financing. Their model explicitly accounts for intra-sectorial flows and stocks in the non-financial corporations sector as firms emit and hold equities. Furthermore, they model the shifting from firms' real investment towards financial investment by introducing a Tobinesque portfolio choice behaviour between productive and financial assets. Their results highlight that financialisation plays a depressive role in the economy which can be counterbalanced if there is a channel to realise capital gains, but not if this channel goes through households' debt.

The fourth paper, by Mazier and Valdecantos, focuses on the eurozone and its trade imbalances. To do this, the authors build a four-country model (the USA, Germany, Spain, and the

Rest of the World), borrowed from the large literature of PK-SFC models of open economies. Their contribution lies on the four alternative closures they consider to close their model, namely a eurozone with three euros (one for countries with surpluses, one for countries with deficits, and a shared euro), a return to the European Monetary System (that is, a return to national currencies with managed exchange rates), and two exchange-rate regimes of a eurozone without Germany. Their results show that the eurozone without Germany would provide more stability and financial robustness than any of the other envisaged scenarios, at the cost of the failure of European integration.

The last paper, by Ciuffo and Rosenbaum, offers a new approach to calibrate PK-SFC models, based on the stability and sensitivity properties of the model at hand. Their approach is based on Monte Carlo simulations, which allow them to explore the domain space of their model parameters, via the usage of Sobol sequences. In doing so they can restrict the parameter space by removing ‘unimportant’ parameters, using sensitivity analysis. The model they use to highlight their result is an extension of the benchmark growth model of Dos Santos/Zezza (2008), which entails the possibility of inheriting a durable consumption good from previous generations and the inclusion of a pension system.

I hope that these papers will give the reader a good overview of the state of the art in the field of PK-SFC modelling. The wide variety of topics analysed in this special issue highlight the versatility of the approach. Given the current fragility that the economic field demonstrates, alternatives to the mainstream modelling techniques need to be put forward. The PK-SFC literature is reaching a mature state, offering a credible complement to existing approaches. Moreover, the recent surge in shared interest between the PK-SFC and other macro-modelling frameworks, such as the Agent-Based literature, forecasts an increasingly blossoming literature, and I certainly look forward to it.

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