

# Macroeconomics for Justice and Inclusive Growth

## MAJIG

### Milestone 2

## Stage Programme

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Lead Beneficiary: Aalborg University

Date of publication: 30/08/2024

## Introduction

*MAJIG - MACroeconomics for Justice and Inclusive Growth* aims to address the urgent need to re-think macroeconomic policies, tools, and models, to overcome the combination of slow growth, mounting foreign debts and financial instability that in several instances of its history (and also very recently) characterized Latin America. The recent social tensions in the continent constitute an alarm bell and the need to move macroeconomic policies in the direction of justice and inclusive growth is increasingly recognized.

After the severe world crisis of 2007-2009, economists worldwide recognized the importance of macroeconomic modeling to define the development trajectory of any given economy and its social, financial and environmental features. The so-called Stock-Flow Consistent (SFC) models have proven to be the more palatable alternative emerging. With economic modeling and forecasting being increasingly requested for sustainable development and policy making, MAJIG intends to respond to the need to shape a figure able to address today's policy and market needs promptly.

The central idea of the project is to contribute to this task by using the already existing capacities in the Latin American universities belonging to the consortium, and strengthening them with the help of world leading experts in the field of macroeconomic modeling working with the European universities from the consortium.

In order to address the above mentioned issues, the Project aims to pursue the following specific objectives:

1. To realize a structured set of training activities that will benefit both Latin American researchers at the beginning of their careers and more expert researchers and teachers willing to strengthen their knowledge in the field of macroeconomic modeling for progressive and inclusive growth. Training activities will be organized around the four fundamental pillars needed to build a SFC macroeconomic model, namely: a) National and Financial Accounts, b) Statistics and Macroeconometrics and c) Advanced Keynesian Macroeconomics; d) step-by-step building of a SFC macroeconomic model.
2. To build, in strict collaboration with Latin American researchers of the consortium, 5 SFC macroeconomic "maquette" models (one per each Latin American partner institution). The models we are referring to belong to the tradition of the so-called applied SFC (Stock Flow Consistent) monetary macro models for open economies, originally developed by W. Godley, which are rapidly gaining interest among researchers interested in understanding the relevant world macroeconomic dynamics. "Maquette" models are a fundamental step in the process of building "true" models. Indeed, while incorporating all the relevant features of true models, maquette models are smaller and simpler, as well as easier to estimate econometrically. They allow researchers to become familiar with the analytical tool on a step-by-step basis and therefore progressively able to elaborate their own models. In other words, maquette models are a key intermediate step in any well designed capacity building

process. To use a classical metaphor, they are a way of teaching a man to fish instead of giving him a fish.

3. To create in each Latin American university in the consortium a small Research Unit on Applied Macroeconomic Modeling in charge of expanding, managing and using, for both research and pedagogical purposes, the above mentioned maquette models. These Research Units will embark brilliant young researchers and provide policymakers with needed inputs: estimated impact of given policy packages, suggestion of innovative policy packages, etc.
4. To strengthen the capacities of Latin American universities belonging to the consortium to support not only policymakers in their choices, but also local civil society organizations, think tanks, entrepreneurial associations, etc., willing to be an active part of the democratic debate on different possible macroeconomic options. Whatever the notion of “development” one might have in mind, “ownership” is indeed widely recognized as a “*conditio sine qua non*” to have it.

The project's main activities have started with the draft of a baseline document mapping the local needs and the state of the art in macroeconomic teaching and research in Colombia and Bolivia.

According to the identified local needs, both internal and external, the consortium designed and implemented four sequential and interrelated courses on macroeconomic modeling, the common features of which are listed below:

- Emphasis on SFC models, since this specific typology of models was identified by the totality of respondents as the most suitable to develop both research and training capabilities in the field of macro analysis, as well as to strengthen their connections with policy-makers;
- Emphasis on hands-on and “practical” capabilities and applications. The four realized courses, indeed, devoted a very significant portion of time to model-building using computer exercises, data analysis, etc.
- Emphasis on some specific issues that respondents identified as key to their research and teaching plans: environmental macro models and multisectoral models;
- Emphasis on sustainability over time of the project. Most participants in the courses were young researchers belonging to the Latin American partner universities. This will favor both the long-term horizon of the proposed research units as well as the enrichment of their teaching curricula.

The four training programmes, already implemented within the scope of WP2, have significantly benefited the Latin American researchers and teachers, strengthening their knowledge in the field of macroeconomic modeling for progressive and inclusive growth:

- The trainees learned to critically analyze and actively participate in the macroeconomic debate in Latin America, particularly in Bolivia and Colombia. They also acquired skills in critically evaluating the theoretical approaches underlying specific SFC models.

- The trainees were instructed on how to build theoretical and applied SFC models using the EViews and R software, replicate benchmark models, simulate SFC models, and develop theoretical and applied models that incorporate key features of the Bolivian and Colombian economies.
- The trainees progressed through the key steps to build applied SFC models for national economies using available time-series data. They conducted in-sample simulations and projections with their own SFC models using EViews and R.
- The trainees learned to critically analyze macroeconomic work based on input-output analysis and environmental accounts. Additionally, they gained the ability to create their own models or modify existing ones to address various macroeconomic questions.

Thanks to the new skills acquired, the partner Institutions will have increased capacities to train future researchers in this field, to strengthen this line of research and to create new collaborations with Civil Society Organisations, and any relevant external stakeholder willing to exploit MAJIG results.

The stage programmes, which will be organized under the scope of the Work Package 3 and will be hosted both by the University of Pavia and the University of Aalborg, will be fundamental to provide the Latin American partners with the practical capabilities to create their own SFC maquette models and to set up the Research Units that will be in charge of working on and updating over time SFC models for policy analysis and forecasting.

Needless to say, policy and prospective analysis are the fundamental inputs needed to expand the connections between the partner Latin American universities and the external actors more directly in charge of policy making.

To the extent that the Research Units set up as a result of the project will be able to transform their “maquette” into “true” models for policy-making, this will certainly help the Latin American partner universities to expand their opportunities to sell consultancy services required by both public and private institutions (ex: ministries, central banks, think-tanks, etc.). This way, academic sustainability will go hand-in-hand with financial sustainability.

The present document is intended to discuss the stage programme which will be implemented under the scope of the Work Package 3 and to list the precise activities that the trainees will undergo during the stage period.

## Overview of the Stage Programmes under MAJIG Work Package 3

As part of the MAJIG Project, Work Package 3 includes the realization of two stage programmes, one in Pavia (Italy) and one in Aalborg (Denmark), designed to further develop the research capabilities and collaboration among the Latin American partners. The stage programme is designed to provide the selected researchers with intensive training and hands-on experience in the development and application of Stock-Flow Consistent (SFC) models, which are crucial for the research activities which will be carried out by the Research Units soon established in each Latin American partner institution.

Scheduled for January 2025, the stage program will be hosted both by the University of Pavia in Italy and the University of Aalborg in Denmark. Each of the five Latin American partner institutions will send one participant to each of these universities, where they will spend one week engaged in workshops tailored to their specific research needs.

The workshops will be led by two of the four European trainers from the consortium: Professor Marco Missaglia from the University of Pavia and Professor Sebastian Valdecantos from the University of Aalborg. The primary goal is to enable participants to develop Stock Flow Consistent maquette models that can be integrated into the work of their home institutions' Research Units. These models will serve as the foundation for the Research Units' future projects and initiatives.

Participants in the stage programmes are to be selected from those who have previously attended the MAJIG training programmes implemented in Colombia and Bolivia. It is essential that the selected researchers demonstrate a high level of motivation and are prepared to lead the establishment of the MAJIG Research Unit at their respective institutions.

To ensure that the stage programmes are as effective as possible, selected participants will submit a joint research proposal by September 30, 2024. This proposal will detail the research questions they intend to explore, the type of SFC model they plan to develop, and their commitment to collecting the necessary data prior to the start of the programmes. The proposal, ranging from 2,500 to 5,000 words, will serve as the basis for tailoring the workshops' content to meet the specific needs of the participants.

The MAJIG Project encourages collaboration among the Latin American partner institutions. Joint research efforts and shared insights are expected to enhance the quality and impact of the research conducted during and after the stage programmes.

To facilitate coordination, one or two online meetings will be organized during the stage programmes. These meetings will ensure that the workshops are aligned with the participants' joint research proposals and that any academic concerns are addressed in advance.

Upon completion of the stage programmes, participants are required to draft a joint report detailing their experiences and the outcomes of the workshops. This report will not only document the progress made during the stage programmes but will also serve as a useful resource for other universities and research centers.

Additionally, participants are expected to provide a report on the equipment (software) purchase and its utilization, as well as on the establishment of the Research Units. These reports will ensure the correct tracking of project activities and will contribute to the broader dissemination of knowledge generated by the MAJIG Project.

The stage programmes under MAJIG Work Package 3 represents a significant opportunity for the participating Latin American researchers to enhance their expertise in Stock Flow Consistent macroeconomic modeling. The knowledge and tools gained through the programme will not only benefit the soon established Latin American Research Units but will consequently contribute to a wide range of stakeholders potentially interested in the future exploitation of the MAJIG results.