



Monetary, Fiscal and Structural Policies with Heterogeneous Agents SSH-CT-2008-225408- POLHIA

SECOND PERIODIC REPORT (19-36 Month)

Publishable summary

POLHIA's general goal, as stated in Annex 1 of the Grant Agreement, consists in "exploring the role of macroeconomic policies and the nexus of macroeconomic and microeconomic/structural policies in an heterogeneous agents setting."

POLHIA aims at providing new insights and useful suggestions for the implementation of both macroeconomic policies and structural policies.

The scientific basis on which policy recommendations rest has been laid down in the first reporting period (months 1-18).

In the second reporting period (months 18-36) research work has been finalized and completed. The research work of most of the POLHIA units, in fact, in this period has aimed at exploiting the theoretical frameworks, analytical models, empirical and experimental databases and simulation software mainly developed in the first period to derive useful research-based policy recommendations. Scientific interaction with Professors Bruce Greenwald and Joseph Stiglitz has been key to the development and refinement of this research.

The Global Financial Crisis and the Great Recession that unfolded after the project was drafted have dramatically changed the terms of the policy debate in the academia, the political arena and on the media. The research agenda of POLHIA therefore has been deeply affected by these developments. The research work on issues pertaining to the GFC, while of course not listed among the deliverables, is nourishing our thinking and challenging our view of the future and of the design of policies.

Detailed information about the aims of POLHIA, institutions involved and the output of research are available at the dedicated project website www.polhia.eu. All the deliverables of the second reporting period have been uploaded and will be available for download if not protected by copyright.

In a nutshell (and focussing essentially on the policy related research), in the second reporting period:

- 1) Units at Amsterdam and Leuven have expanded, extended and exploited for policy purposes models inspired by the idea that **heterogeneous mechanisms of expectations formation** are key to understand market outcomes, macroeconomic performance and the effectiveness of monetary policy. This research has shown that empirical regularities that are considered puzzles if one adopts the efficient market/rational expectations approach (for instance, the so-called disconnect puzzle in the forex market) are quite straightforward market outcomes under heterogeneous expectations. In a macroeconomic perspective, NK-DSGE models with

heterogeneous expectations behave quite differently – in terms of properties of the macroeconomic equilibrium – from the standard ones. Evidence collected and analyzed during experiments with human subjects shows that only few rules are actually adopted to form expectations and that agents may switch from one mechanism to another depending upon the forecasting performance of the rules. This evidence has important implications for the effectiveness of monetary policy in an experimental environment which replicates the basic features of a macrodynamic NK model.

2) Units at Catholic University (Milan) and Ancona have modified a **multi agent model** characterized by heterogeneous financial conditions of firms (developed and tested in the first reporting period, see deliverable D4.2) to assess the impact of monetary and fiscal policy (see deliverable D52). As already emphasized in D4.2, even in the absence of a centralized marketclearing mechanism, the economy shows a tendency to self-organize towards a spontaneous order which is however characterized by booms and busts of economic activity. In the second reporting period simulations of the modified AB model with monetary policy has shown the stabilizing effects of a Taylor rule. Also fiscal policy has stabilizing effects, especially when the public sector is not constrained by a balanced budget rule.

3) The unit at Sciences Po (Paris) has pursued a line of research already inaugurated in the first reporting period essentially in the domain of **fiscal policy**. The different proposals under discussion at the European Union level have been discussed and ranked based upon their macroeconomic outcomes. The new debt rule would certainly lead to lower debt levels, hence to larger fiscal margins for maneuver in the future but, in steep contrast with the golden rule of public finance, it would be very costly to implement. It is true, however, that the fiscal status quo in the EU would be even worse.

4) The unit at La Sapienza (Rome) has emphasized the two-way feedback between inequality, wage dispersion and labour market features on the one hand and educational attainment on the other hand.