

# Optimal Monetary Policy Rules: The Problem of Stability Under Heterogeneous Learning\*

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## Abstract

In this paper we extend the analysis of optimal monetary policy rules in terms of stability of an economy, started by Evans and Honkapohja (2003b), to the case of heterogeneous private agents learning. Following Giannitsarou (2003), we pose the question about the applicability of the representative agent hypothesis to learning. This hypothesis was widely used in learning literature at early stages to demonstrate convergence of an economic system under adaptive learning of agents to one of the rational expectations equilibria in the economy. We test these monetary policy rules in the general setup of the New Keynesian model that is a work horse of monetary policy models today. It is of interest to see that the results obtained by Evans and Honkapohja (2003b) for the homogeneous learning case are replicated for the case when the representative agent hypothesis is lifted.

JEL Classification: C62, D83, E31, E52

Keywords: monetary policy rules, New Keynesian model, adaptive learning, stability of equilibrium, heterogeneous agents

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\*The major part of this paper was written while both authors stayed as visiting Ph.D. students at the University of Cambridge, UK. The authors express special thanks to their supervisor while at Cambridge, Seppo Honkapohja, for continuous support of this research and immeasurable help and advice. All errors are the authors' responsibility.

The authors express thanks to the participants of the European Economics and Finance Society (EEFS 2006) 5th Annual Conference "European Labour Markets, Trade and Financial Flows and Economic Growth" in Heraklion, Crete, Greece May, 18-21, 2006 and the conference of the Society for Economic Dynamics (SED 2007), Prague, Czech Republic, June, 2007, for valuable discussion.

The paper won the first place in the Czech Econometric Society competition for the best Ph.D. student paper.

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<sup>‡</sup>CERGE–EI is a joint workplace of the Center for Economic Research and Graduate Education, Charles University, and the Economics Institute of the Academy of Sciences of the Czech Republic.

## Abstrakt

V tomto článku rozšiřujeme analýzu optimálních monetárních pravidel z hlediska stability ekonomiky, poprvé uvedené v práci Evanse a Honkapohji (2003b), na případ učení heterogenních soukromých agentů. Používajíc práci Giannitsarou (2003) si pokládáme otázku, zda je možné aplikovat hypotézu reprezentativních agentů na učení. Tato hypotéza byla velmi často používána v dřívější literatuře k demonstraci konvergence ekonomického systému při adaptivním učení agentů k jednomu z rovnovážných bodů racionálních očekávání dané ekonomiky. Testujeme monetární pravidla v obecném nastavení neokeynesiánského modelu, který je tažným koněm všech dnešních modelů monetární politiky. Je také zajímavé sledovat výsledky Evanse a Honkapohji (2003b) pro případ homogenního učení, které jsou zopakovány i v případě, kdy hypotéza reprezentativních agentů je opuštěna.