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Jean Barthélemy, Magali Marx

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Solving Endogenous Regime Switching Models*

Jean Barthélemy Magali Marx

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Abstract

This paper solves rational expectations models in which structural parameters switch across multiple regimes according to state-dependent (endogenous) transition probabilities. Assuming small shocks and smooth transition probabilities, we apply a perturbation approach. We first provide for conditions under which a unique bounded equilibrium exists. We then compute first- and second-order approximations. In a new-Keynesian model with monetary policy switching, we document new effects of monetary policy switching when transition probabilities depend on inflation.

Keywords: Regime switching, rational expectations models, indeterminacy, perturbation methods.

JEL: E32, E43

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*Barthélemy: Sciences-Po, Department of Economics, 28 rue des Saints Pères 75007 Paris, France. Banque de France, rue Croix des petits champs, 75001 Paris. Email: jean.barthelemy@sciencespo.fr. Marx: Banque de France, rue Croix des petits champs 75001 Paris, France. Email: magali.marx@banque-france.fr. The views expressed in this paper do not necessarily reflect the opinion of the Banque de France. Previous versions of this paper have circulated under the title "State-Dependent Probability Distributions in Non Linear Rational Expectations Models". We particularly thank Michel Juillard for helping us to make our methodology compatible with the Dynare software. We also thank L. Benati, F. Bilbiie, A. Braun, F. Canova, S. Cho, G. Cléaud, B. Diba, S. Dubecq, M. Eichenbaum, C. Hellwig, R. Farmer, M. Giannoni, E. Leeper, O. Loisel, E. Mendoza, E. Mengus, B. Mojon, A. Pamfili, X. Ragot, F. Velde, D. Waggoner, C. Walsh, M. Woodford and T. Zha for their very helpful comments. We are finally grateful for many comments from seminar participants at the 2010 and 2011 International Conference on Computing in Economics and Finance, the 2011 EEA-ESEM conference, the 2013 SED meeting, the Paris School of Economics, the Federal Reserve Banks of Atlanta and of Chicago and Indiana University. All errors are our own.

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