Liquidity Trap and Stability of Taylor Rules∗
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First version: May 2016; Revised: April 2017

Abstract: We study a productive economy with fractional cash-in-advance constraint on consumption expenditures. Government issues safe bonds and levies taxes to finance public expenditures, while the Central Bank follows a feedback Taylor rules by pegging the nominal interest rate. We show that when the nominal interest rate is bound to be non-negative, under active policy rules a Liquidity Trap steady state does emerge besides the Leeper (1991) equilibrium. The stability of the two steady states depends, in turn, upon the amplitude of the liquidity constraint. When the share of consumption to be paid cash is set lower than one half, the Liquidity Trap equilibrium is indeterminate. The stability of the Leeper equilibrium too depends dramatically upon the amplitude of the liquidity constraint: for low amplitudes of the latter, the Leeper equilibrium can be indeed stable. Policy and Taylor rules are thus theoretically rehabilitated since their targets, by contrast with a vast literature, may be reached for infinitely many agents' beliefs. We also show that a relaxation of the liquidity constraint is Pareto-improving and that the Liquidity Trap equilibrium Pareto-dominates the Leeper one, in view of the zero cost of money.

Keywords: Cash-in-Advance; Liquidity Trap; Monetary Policy; Multiple Equilibria.

Journal of Economic Literature Classification Numbers: E31; E41; E43; E58.

∗We would like to warmly thank an anonymous referee for his precious suggestions and comments. We would like to thank Gaetano Bloise, Jean-Michel Grandmont, Daniel Mirza for helpful comments and seminar participants to "Cliometrics and Complexity" (CAC) seminar held at the Ecole Normale Supérieure de Lyon where this research was first presented, November 27th, and most notably Cuong le Van, Pablo Jensen and Pierre Borgnat. Part of this research has been completed while Antoine Le Riche was visiting the Católica Lisbon School of Business and Economics. He thanks Professor Leonor Modesto and Professor Teresa Lloyd-Braga and all the staff for their kind invitation. Any errors are our own.
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