Author's Accepted Manuscript

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PII: S0165-1889(16)30135-X
DOI: http://dx.doi.org/10.1016/j.jedc.2016.08.004
Reference: DYNCON3339

To appear in: *Journal of Economic Dynamics and Control*

Received date: 4 January 2016
Revised date: 17 August 2016
Accepted date: 22 August 2016

Cite this article as: Roberto Piazza, Self-fulfilling deflations, *Journal o Economic Dynamics and Control,* http://dx.doi.org/10.1016/j.jedc.2016.08.004

Self-fulfilling deflations

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August 27, 2016

Abstract

What types of monetary and fiscal policy rules produce self-fulfilling deflationary paths that are monotonic and empirically relevant? This paper presents simple theoretical conditions that guarantee the existence of these paths in a general equilibrium model with sticky prices. These sufficient conditions are weak enough to be satisfied by most monetary and fiscal policy rules. A quantification of the model which combines a real shock à la Hayashi and Prescott (2002) with a simultaneous sunspot that deanchors inflation expectations matches the main empirical features of the Japanese deflationary process during the "lost decade". The results also highlight the key role of the assumption about the anchoring of inflation expectations for the size of fiscal multipliers and, in general, for any policy analysis.

Keywords: Deflation, liquidity trap, deanchoring, inflation target, sunspot.
JEL classification: E31, E40, E43.

1 Introduction

Since 2008, aggressive monetary policy has brought the short-term interest rate to the lower bound across the major advanced economies. Time and time again "deflation scares" and the occurrence of liquidity traps have been a source of concern for policy-makers around the world. While liquidity traps are an interesting empirical phenomenon and an important topic of policy discussions, the theoretical debate on their nature is still very much open. This paper contributes to this debate by presenting new theoretical and quantitative results on the properties of self-fulfilling liquidity traps.

Self-fulfilling liquidity traps may arise because, under rational expectations, monetary and fiscal feedback rules typically give rise to multiple equilibria. Indeed, the study of multiplicity in monetary models spans a small literature on its own (for an early overview see Michenera and Ravikumar [1998]). In particular, when the monetary authority pursues an inflation target additional equilibria exist where inflation expectations are deanchored from the target. A sunspot shock that deanchors inflation expectations may therefore be the reason why an economy is driven into a deflationary liquidity trap. The critical role of inflation expectations

*I would like to thank James Bullard, John Cochrane, Stephanie Schmitt-Grohé, David Andolfatto and one anonymous referee for their useful comments. The views expressed are those of the author and do not necessarily reflect those of the Bank of Italy. Contact information: Bank of Italy, via Nazionale 91, 00184, Roma, e-mail: roberto.piazza@bancaditalia.it