

MACROECONOMIC FLUCTUATIONS WITH HANK & SAM: AN ANALYTICAL APPROACH

Morten O. Ravn
University College London

Vincent Sterk
University College London

Abstract

Recently developed HANK models, which combine Heterogeneous Agents and New Keynesian frictions, have had a considerable impact on macroeconomics. However, due to the complexity of such models, the literature has focused on numerically solved models and therefore little is known about their general properties. This paper presents a tractable HANK model which integrates Search and Matching (SAM) frictions in the labor market. The model features endogenous idiosyncratic earnings risk which may be procyclical or countercyclical. When this risk is countercyclical, which we argue is the empirically plausible case, there is downward pressure on real interest rates in recessions due to a precautionary saving motive. We show that in this setting (a) the economy may get stuck in a high-unemployment steady state, (b) the Taylor principle is insufficient to eliminate local indeterminacy of the intended steady state, and (c) nominal rigidities and incomplete markets are complementary in terms of amplifying the impact of shocks on the macro economy. (JEL: E10, E21, E24, E30, E52)

The editor in charge of this paper was Claudio Michelacci.

Acknowledgments: We are grateful to the editor and three referees at this journal, our discussants Edouard Challe, Wei Cui, Kurt Mitman, Xavier Ragot, Federica Romei, Francesca Loria, as well as Jordi Galí, Marina Lovchikova and participants at numerous conferences and seminars for many helpful comments. Financial support from the ADEMU (H2020, No. 649396) project and from the ESRC Centre for Macroeconomics is gratefully acknowledged. Chanwoo Kim provided superb research assistance. Ravn is a CEPR Research Fellow. Sterk is a CEPR Research Affiliate.

E-mail: m.ravn@ucl.ac.uk (Ravn); v.sterk@ucl.ac.uk (Sterk)