Discussion of The Design of Monetary and Fiscal Policy: A Global Perspective

John Leahy New York University March 5, 2005

Main Points

- Determinacy is a desirable property of monetary policy
- Determinacy may be a big problem in New Keynesian models with bonds or capital

- Basic New Keynesian model without capital

 - $y_t = -\sigma(i_t E_t \pi_{t+1}) + E_t y_{t+1}$
- Equilibrium is determinant so long as the interest rate follows the Taylor principle
 - di/dπ>1

- Benhabib, Schmidt-Grohe and Uribe:
 - money in the production function
 - marginal cost increasing with the interest rate (cost channel)

- Dupor introduces capital
- Argues
 - Indeterminacy and non-existence likely
 - Taylor principle bad
 - Better if di/dπ<1

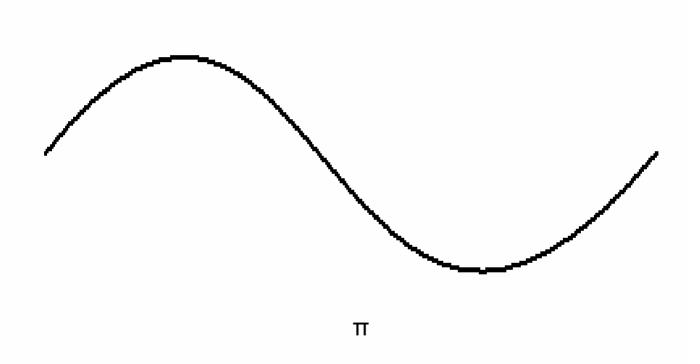
Carlstrom and Fuerst

- Dupor's results depend crucially on his continuous time framework
 - investment depends on current marginal product of capital
- With discrete time:
 - Determinacy a problem if lots of price stickiness.
 - Taylor principle leads to stability and determinacy for reasonable parameterizations.

Story

- Complex
- Suppose expected inflation rises.
 - Real interest rate rises (Taylor principle)
 - Marginal cost falls today, but is placed on an upward trajectory.
 - Destabilizing today
 - Stabilizing tomorrow

Story

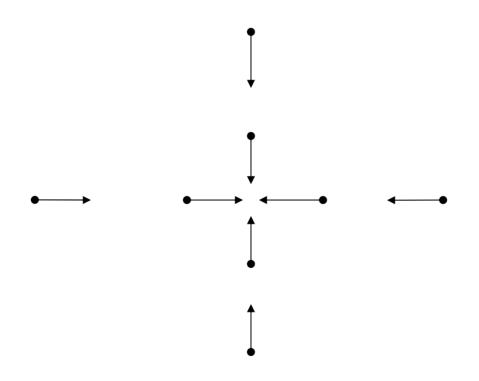


- Sveen and Weinke argue that Carlstrom and Fuerst too optimistic.
- Kimball shows that anything that makes a firms marginal cost more sensitive to its own output increases price stickiness.
- Carlstrom and Fuerst assume a single economy wide market for capital.
- If assume that capital is firm specific, price stickiness increases.
 - an economy with prices fixed for 4 quarters looks like an economy with prices fixed for 10 quarters.
 - Eqilibrium is no longer determinant for "reasonable" parameters.

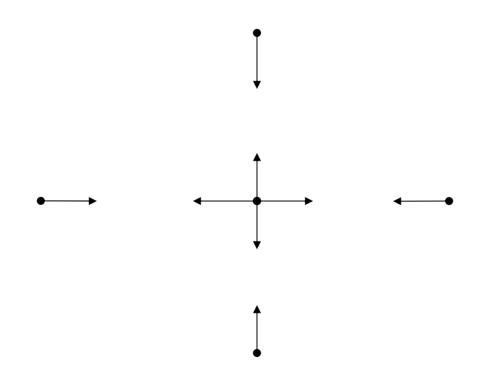
This Paper

- Considers global conditions for determinacy.
- Argues that Sveen and Weinke too optimistic.
- There exists a neighborhood of the border between the regions of determinacy and indeterminacy in which the local conditions for determinacy are satisfied, and yet there still exist lots of other equilibria.

This Paper



This Paper



What do we do now?

- Don't Panic
- Think more about equilibrium selection
 - Learning
 - Complexity
 - Nature of the game
- Think more about non-linearities
 - Here the Fed policy is log-linear, while analysis is non-linear.
- Think more about "reasonable" parameter values.

