

Discussion of Galí and Monacelli's "Optimal Fiscal Policy in a Monetary Union"

Carl Walsh

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Outline of comments

- Briefly discuss the model structure;
- Discuss the channels of fiscal policy;
- Discuss the issue of delegation in the conduct of fiscal policy;
- Suggest some extensions.

Model structure: goals and features

Goal: to provide “a tractable framework for policy analysis in a monetary union...”

- Desired features of a model to analyze monetary and fiscal policy in a monetary union:
 - Should contain optimizing agents and nominal rigidities;
 - Should contain a fiscal sector with a motive for public consumption;
 - Should incorporate many interlinked open economies.

Model structure: what's missing?

- Multiple sources of nominal rigidities;
- Distortionary taxes;
- A role for government debt.

Three roles of government spending

1. in loss function – direct welfare effect;
2. in inflation equation – cost channel effect;
3. in aggregate demand equation – direct demand effect.

Stabilization policy: demand effects only

- Policy trade-off is

$$\tilde{y}_t^i = -\varepsilon \pi_t^i;$$

- Optimal fiscal policy is given by

$$\tilde{g}_t^i = (r^* - r r_t^i) = - \left(r r_t^i - \int_0^1 r r_t^j dj \right);$$

- Country-specific variation in real rate gap is offset by fiscal policy;
- Both \tilde{y}_t^i and π_t^i equal zero – fiscal policy achieves complete stabilization;

Demand and cost effects

- Policy trade-off is

$$\tilde{y}_t^i = -\varepsilon \left(\frac{\varphi}{1 + \varphi} \right) \pi_t^i;$$

- Optimal fiscal policy is given by

$$\tilde{g}_t^i = \Phi(r^* - rr_t^i) = -\Phi \left(rr_t^i - \int_0^1 rr_t^j dj \right), \quad \Phi = \frac{(1 + \varphi)(1 + \varepsilon\lambda\varphi)}{1 + \varphi(1 + \varepsilon\lambda\varphi)} > 1;$$

- Overactive fiscal policy: positive interest rate shock increases \tilde{y}_t^i .

First order conditions for GM's policy problem:

- Optimal fiscal targeting rule:

$$\tilde{g}_t^i = -\chi \left[(1 + \varphi) \tilde{y}_t^i - \varepsilon \varphi \pi_{i,t}^i \right] = \bar{\Phi} (r^* - r r_t^i) \quad (1)$$

- The parameter $\bar{\Phi}$ is given by

$$\bar{\Phi} = \frac{(1 + \varphi)(1 + \varepsilon \lambda \varphi)}{1 + \varphi(1 + \varepsilon \lambda \varphi) + \frac{1}{\chi}} < \Phi.$$

- Output gap declines with positive interest rate shock $\Leftrightarrow \frac{1}{\chi} > \varepsilon \lambda \varphi$
(which holds for GM's calibration).

Basic intuition

- No cost shocks or shocks to wedge between efficient and flexible-price equilibrium output levels.
- So think of two basic shocks, common to union and unique to country.
- Common monetary policy handles the first, fiscal policy in each country handles the second – except that g appears in loss AND inflation equation.
- So country-specific fiscal policy does not lead to complete stabilization.

Policy in a monetary union

- Alternative (more natural?)
 - fiscal authority in country i maximize welfare in country i ;
 - Does it matter? Looks like it doesn't – absence of spillover effects means fiscal stabilization can be delegated to individual countries, each minimizing

$$\frac{\varepsilon}{\lambda}(\pi_{i,t}^i)^2 + (1 + \varphi)(\tilde{y}_t^i)^2 + \frac{1}{\chi}(\tilde{g}_t^i)^2;$$

- But – this is not the welfare of the representative household in country i .

Welfare in individual country:

- Approximation to welfare of representative agent in country i is

$$W_t^i = -\alpha(\tilde{y}_t^i - \tilde{g}_t^i) + \alpha \int_0^1 \tilde{c}_t^j dj - \frac{1}{2}(1+\chi) \int_0^1 \left[\frac{\varepsilon}{\lambda} (\pi_{i,t}^j)^2 + (1+\varphi)(\tilde{y}_t^j)^2 + \frac{1}{\chi} (\tilde{g}_t^j)^2 \right]$$

- Openness matters – via α ;
- Suggests one cannot use first order approximations to structural equations to evaluate this expression to second order;
- This is true even if, as GM assume, a subsidy eliminates the steady-state inefficiency due to the presence of monopolistic competition.

Welfare in individual country:

- But
 - Under discretion, $\tilde{y}_t^i - \tilde{g}_t^i = \tilde{h}_t^i$ is taken as given by country i fiscal authority;
 - So $-\alpha(\tilde{y}_t^i - \tilde{g}_t^i) + \alpha \int_0^1 \tilde{c}_t^j dj$ become terms independent of policy.

Commitment

- Under discretion, $\tilde{y}_t^i - \tilde{g}_t^i = \tilde{h}_t^i$ is taken as given by country i fiscal authority;
- Not true under commitment because \tilde{h}_t^i depends on $E_t \tilde{g}_{t+1}^i$;
- Distinction between delegated fiscal policy and centralized fiscal policy will be important.

Welfare in individual country:

- Benigno and Woodford (2004) approach: use second order approximation structural equation to eliminate first order terms from W^i ;
- Second order approximation to welfare in country i will be of form

$$\frac{1}{2}\Omega \int_0^1 \left[q_\pi (\pi_{i,t}^i)^2 + q_y (\tilde{y}_t^i)^2 + q_g (\tilde{g}_t^i)^2 \right] di + T_{t_0},$$

but weights will differ from the ones in the union-wide welfare function;

- Thus, delegating fiscal policy to individual countries will lead to different equilibrium than social planner's problem Galí and Monacelli analyze.

Summary

- Very interesting line of research – useful starting point but major issues have not yet been incorporated
- distortionary taxation
- debt policies
- alternative policy regimes (delegated, centralized, commitment, delegation)
- Look forward to the author's future work in developing this framework.