Discussion of Galí and Monacelli’s “Optimal Fiscal Policy in a Monetary Union”

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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
  \[ \tilde{g}_t^i = (r^* - r_{rt}^i) = - \left( r_{rt}^i - \int_0^1 r_{rt}^j dj \right); \]

- Country-specific variation in real rate gap is offset by fiscal policy;

- Both \( \tilde{y}_t^i \) and \( \pi_t^i \) 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
  \[ \tilde{g}_t^i = \Phi (r^* - r r_t^i) = -\Phi \left( r r_t^i - \int_0^1 r r_t^j d j \right), \quad \Phi = \frac{(1 + \varphi)(1 + \varepsilon \lambda \varphi)}{1 + \varphi(1 + \varepsilon \lambda \varphi)} > 1; \]

- Overactive fiscal policy: positive interest rate shock increases \( \tilde{y}_t^i \).
First order conditions for GM’s policy problem:

- Optimal fiscal targeting rule:
  \[
  \tilde{g}_t^i = -\chi \left[ (1 + \varphi)\tilde{y}_t^i - \varepsilon \varphi \pi_{i,t}^i \right] = \Phi (r^* - r_r^i) \tag{1}
  \]

- The parameter \( \Phi \) is given by
  \[
  \Phi = \frac{(1 + \varphi)(1 + \varepsilon \lambda \varphi)}{1 + \varphi(1 + \varepsilon \lambda \varphi) + \frac{1}{\chi}} < \Phi.
  \]

- 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

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

- Openness matters – via $\alpha$;

- 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.