Discussion of Hagedorn, Manovskii, Mitman:

The Fiscal Multiplier

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March 20, 2018

The government spending multiplier

- A long stream of literature on multipliers.
- Data (spending; transfers).
- Models: limited heterogeneity, or permanent heterogeneity.

- Spending multiplier heavily depends on financing of spending.

The current paper

- New Keynesian model: sticky prices and wages.
- Ricardian equivalence fails
  (discount factor heterogeneity, borrowing constraints).
- Asset trade frictionless: mutual fund (capital, government bonds).
- Government consumption enters utility additively separable.
- One-shot exercise (focus is on one-time shock).

- Keynesian multiplier: 1.4.
- RBC multiplier: 0.6.

- Combine two things, a spending multiplier and a transfer multiplier.

- Keynesian multiplier large. g is a public works program. Public works program means income, impatient or borrowing-constraint hh can (and do) move consumption forward in time.
- RBC multiplier small. Poor pay for spending through immediate cuts to welfare programs. Spending is financed by immediate cuts in transfers. This is regressive, hurts incomes of the poor.

Comment 1: Fiscal-Monetary Mix

$$B_{t+1} = (1 + i_t)B_t + G_t - (T + \tau P w_t s h_t),$$

- Nominal target for B_t.
- Active fiscal policy.
- Gov't policy formulated with nominal spending targets.
- Fiscal policy anchors long-run price level $\overline{p}$.

$$\widehat{R}_t = \rho_R \cdot \widehat{R}_{t-1} + (1 - \rho_R) \cdot \phi_p \cdot (p_t - \overline{p})$$

Comment 2: Can Multiplier be Large?

- Monetary fiscal mix: a unique price level in the long run.
- Long run not affected by the spending experiment.
- Clearly, this shapes the multiplier.
- The small SOE case in Corsetti et al. (2013).

Comment 2: Can Multiplier be Large?

- Focus on substitution effect as in NK model.
- Consumption Euler equation

$$\widehat{c}_t = E_t\widehat{c}_{t+1} - (R_t - E_t\widehat{\pi}_{t+1})$$

- Or,

$$\widehat{c}_t = E_t\widehat{c}_{t+1} - (\widehat{R}_t - E_t(\widehat{p}_{t+1} - \widehat{p}_t))$$

- Iterate forward:

$$\widehat{c}_t = -\left(E_t\sum_{s=0}^{T}\widehat{R}_{t+s}\right) + E_t\widehat{p}_{t+T+1} - \widehat{p}_t + E_t\widehat{c}_{t+T+1}$$

Comment 2: Can Multiplier be Large?

- Keep iterating, using $\widehat{p}_{t+T+1} \to \overline{p}$ and stationarity of consumption.
- Then

$$\widehat{c}_t = \left(E_t \sum_{s=0}^{\infty} \widehat{R}_{t+s} \right) + \widehat{p}_t$$

- Or, since in steady state initially,

$$\widehat{c}_t = \left(E_t \sum_{s=0}^{\infty} \widehat{R}_{t+s} \right) + \widehat{\pi}_t$$

Comment 2: Can Multiplier be Large?

$$\widehat{c}_t = \left(E_t \sum_{s=0}^{\infty} \widehat{R}_{t+s} \right) \quad + \quad \widehat{\pi}_t$$

- In the baseline, $\widehat{R}_t = 0$ in all periods.
- In the ZLB scenario (wrt to spending), $\widehat{R}_t = 0$
- With the price-level target Taylor rule, $\widehat{R}_t \approx 0$ throughout.
- So, all depends on impact response of π_t, ...

  ... and that is small.

Comment 3: Calibration and Scenarios

- Wage response:
  - Income distribution is central in this theory of transmission.
  - Transmission depends on response of income.
  - Labor-market frictions?
  - How reasonable is the wage rigidity? (link to Calvo frequency?)
- How large is the multiplier if tax-financed through labor tax?
- Monetary redistribution? Nominal borrowing?

Fiscal mix – an example

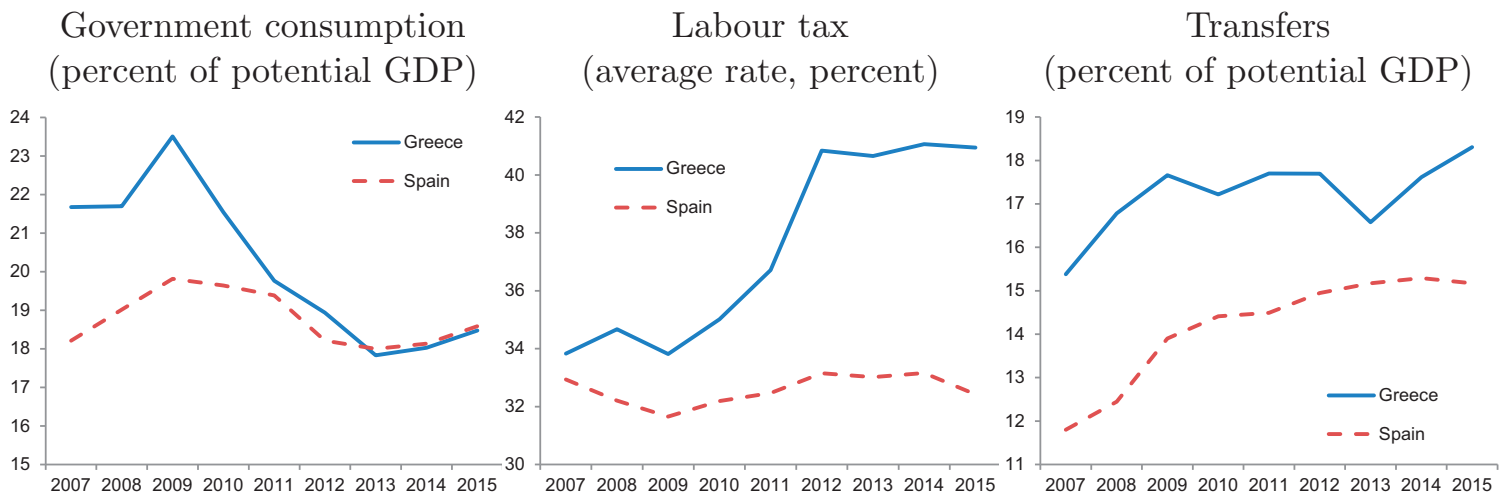

Figure 4. Development of fiscal instruments in Greece (solid line) and Spain (dashed line)

Callegari et al. Economic Policy, 2017

In sum

- This is an important paper.
- It highlights channels of fiscal transmission.

- The mix matters.
- The spending multiplier depends on financing, monetary accommodation, ...

... and the future fiscal stance!