Discussion of "Redistribution and the Multiplier" by Tommaso Monacelli and Roberto Perotti

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EUI-IMF Conference, Florence May 2011

Summary

- Multiplier: who pays for it? Impatient borrowers or patient savers.
- Robin Hood should be finance minister if you want positive multiplier

$$
\begin{aligned}
C_{B,t} &= w_t N_{B,t} - r_t \bar{D} - T_{B,t}, \\
C_{S,t} &= w_t N_{S,t} + r_t \bar{D} + Profits_t - T_{S,t},
\end{aligned}
$$

- Missing piece: evidence in favor of both
  - $assumption$: are ($lump$-sum) taxes themselves different depending on whether S or B?
  - $mechanism$: are labor supply responses to taxation different across S-B?

Rest of this discussion: Three points

1. What is fundamentally new with respect to already existing, comparable models
   - Potentially much (!), $effectively$ a bit less
2. Why is multiplier so low (half of the people eat all their income and pay no taxes)
   - a serious (and not obvious) issue
3. Where the real beef may be:
   - taking constraints seriously.

What's new

Throughout analysis, $\bar{D} = 0$:

$$
\begin{aligned}
C_{B,t} &= w_t N_{B,t} - T_{B,t}, \\
C_{S,t} &= w_t N_{S,t} + Profits_t - T_{S,t},
\end{aligned}
$$

Model is $exactly$ isomorphic to: $rule$-of-$thumb$ agents (Gali, Lopez-Salido and Valles, 2007 JEEA) or $limited\ asset\ markets\ participation$ LAMP (Bilbiie 2008 JET, Coenen and Straub IntFin, Bilbiie and Straub 2004 WP, Bilbiie, Meier and Mueller 2008 JMCB)

- Interest rate is first-difference in savers' consumption.
- Finance premium (Lagrange multiplier on debt constraint) is a residual variable - no role whatsoever in the allocation (more below).
- One difference - relative share of agents is fixed to one half. Implications of relaxing that?

Intuition

- What is at the core of the mechanism is not the finance premium (no borrowing constraint is "relaxed"), but:
- $Profits$ - just as in the model with LAMP (more below).
- The new element here: the role of asymmetric taxation;
- Anecdote: very first -2002- version of GLV was making precisely this assumption (only S taxed), but also inelastic labor of B.
- Would be useful to have a symmetric, truly lump-sum benchmark ($T_{B,t} = T_{S,t} = 0.5G_t$)

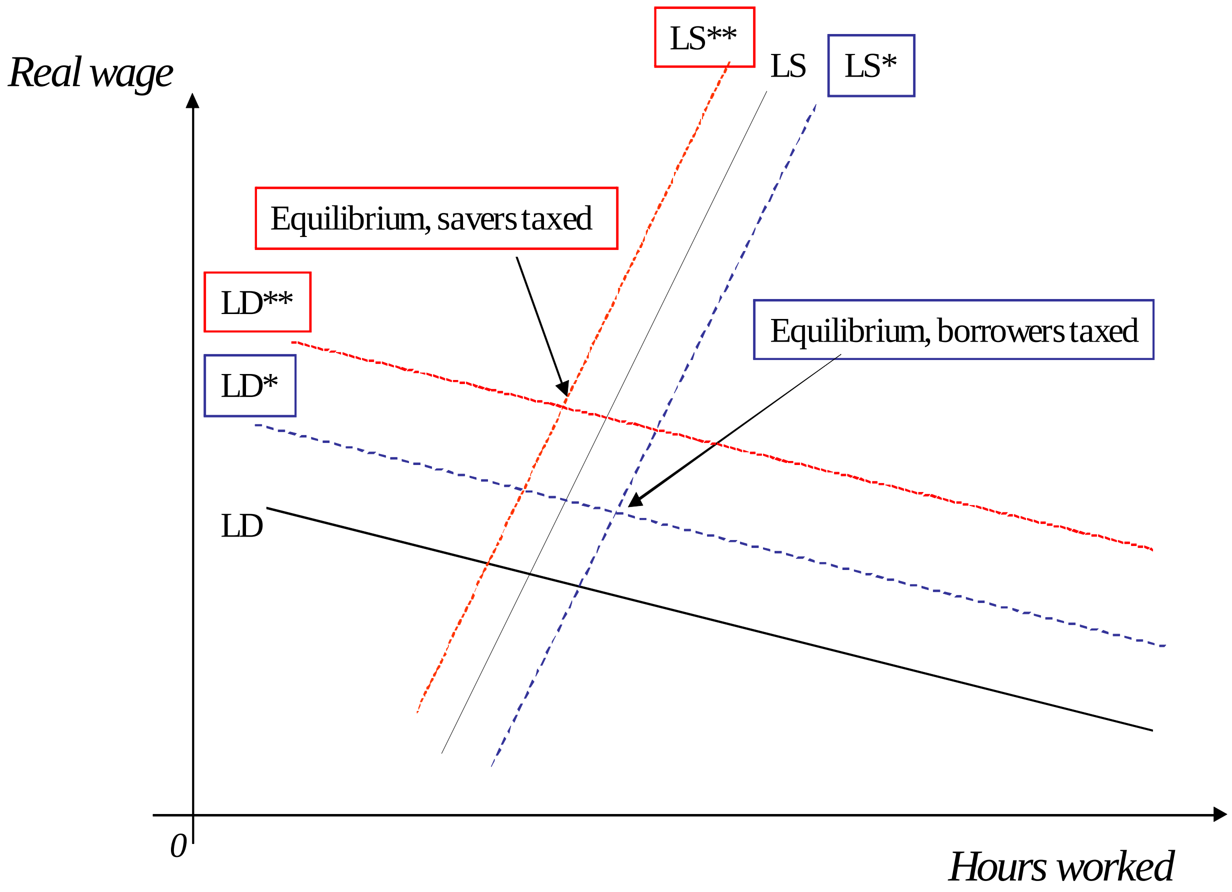

Fig. 1: The labor market equilibrium in response to a government spending increase.

Why is multiplier so $small$?

- Effect would be stronger (or: would need less taxation asymmetry) for
  – more inelastic labor
  – higher relative share of "borrowers", say λ (fixed to one half here)

- BUT $\rightarrow$ "inverted aggregate demand logic" (Bilbiie, JET 2008) = a bifurcation in the aggregate elasticity of intertemporal substitution:

- Slope of aggregate demand (IS curve) $changes\ sign$ when

$$\lambda > \lambda^* = \frac{1}{1 + \frac{\varphi}{1+\mu}}$$

- Reason: negative income effect on asset holders through profit income.

- In this paper, since $\lambda = 0.5$, we stay in the "standard" region as long as:

$$\varphi < 1.2$$

- Interesting to study robustness of this to non-zero (or endogenous) debt limit, but likely to be second-order.

- What may be truly first-order: whether fiscal policy indeed relaxes borrowing contraints.

When will constraint stop binding?

- Solve for Lagrange multiplier on borrowing limit, derive bounds beyond which $constraint$ $stops\ binding$:

  – Permanent, perfect foresight (γ_j is net growth rate of consumption of agent of type j):

$$\frac{1+\gamma_S}{1+\gamma_B} > \frac{\beta_S}{\beta_B} \simeq 1.01.$$

  – Purely temporary shocks (this is where multiplier is largest!)

$$c_{B,t} - c_{S,t} > \frac{\beta_S}{\beta_B} - 1 \simeq 0.01$$

- Very likely to stop binding under G shocks $precisely$ in region of interest ($c_B \nearrow, c_S \searrow$)

- At the very least need to do simulations to find shock size such as it keeps binding (still problematic - which policy function to use)

- But this is exactly what is potentially first-order, and new:

  — what happens when fiscal policy relaxes borrowing constraint?

Answer is far from being obvious

Two periods, today and tomorrow

Supply (borrower): $$D = \begin{cases} \frac{Y_B'}{1+\beta_B}\frac{1}{1+R} - \frac{\beta_B}{1+\beta_B}Y_B \text{ if } \frac{1}{1+R} < \frac{1+\beta_B}{Y_B'}\bar{D} + \beta_B\frac{Y_B}{Y_B'} \\ \bar{D}, \text{ otherwise} \end{cases}$$

Demand (saver): $$D = -\frac{Y_S'}{1+\beta_S}\frac{1}{1+R} + \frac{\beta_S}{1+\beta_S}Y_S$$

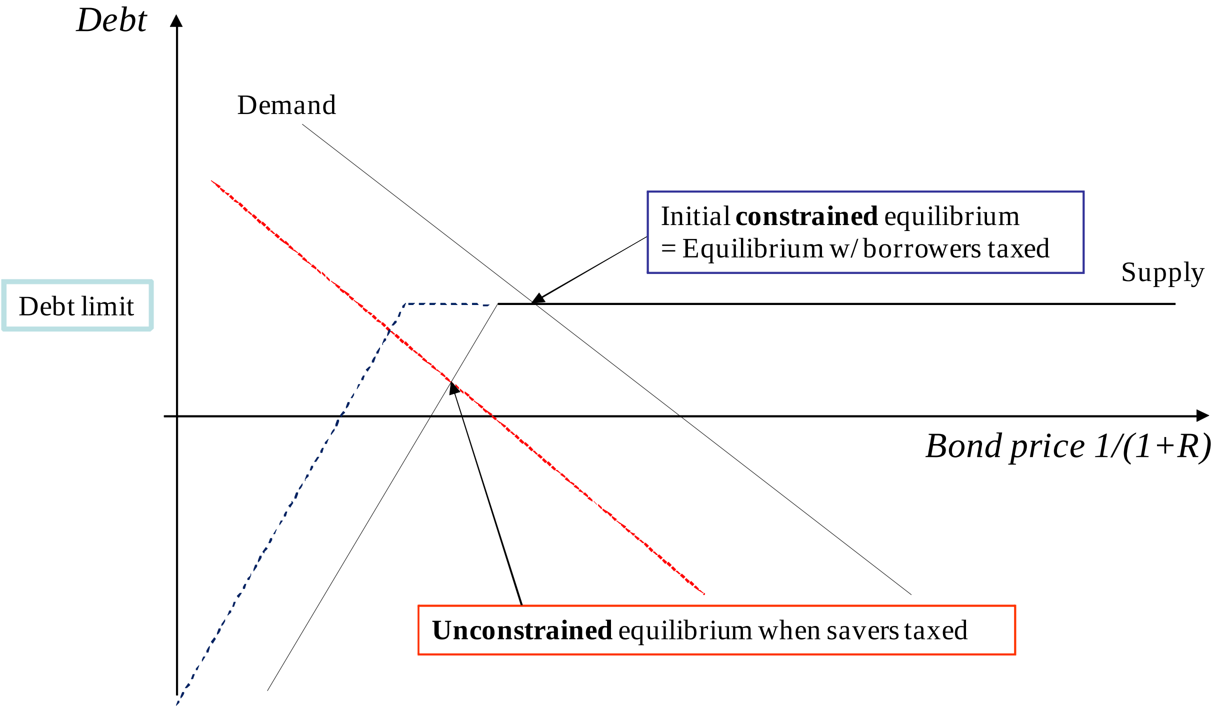

Fig. 2: The effect of government spending: taxation of S (red) or B (blue)

- This implies the $opposite$!

  – spending financed through taxing savers puts economy in standard, unconstrained region $\rightarrow$ crowding out

- Similar picture under endogenous debt limit

- Multi-period stochastic model with such non-linearities can be solved (PEA: Marcet, den Haan).

Minor

- there are idyosyncratic shocks, when agents are taxed asymmetrically.

- inflation does not redistribute wealth from savers to borrowers (unless nominal interest rate is fixed). In fact, in equilibrium it is the other way around: since nominal interest rates fulfil the Taylor principle, in response to inflation real interest rates increase - so wealth is redistributed from borrowers to savers through interest payments.