Discussion of Fiscal Stimulus and Distortionary Taxation, by Thorsten Drautzburg and Harald Uhlig

Roberto Perotti, Bocconi University

December 2, 2010

Benchmark: the neoclassical model

(i) Flexible prices
(ii) Can borrow and lend freely at going interest rate
(iii) Lump sum taxation
(iv) "Throw-in-the-ocean" government spending

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- $G \uparrow \implies$ human wealth $\downarrow \implies$ Labor supply shifts out $\implies Y \uparrow$ but $w \downarrow$ and $C \downarrow$.
- $r \uparrow$ because after the shock, as system returns to steady state, C path is upward sloping.
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Introduce price stickiness: Smets and Wouters

- Remove assumption (i) (flexible prices): allow Calvo pricing
- As $G \uparrow$, AD shifts out; some firms increase price, some cannot $\Longrightarrow$ P/MC $\downarrow$ $\Longrightarrow$ derived demand for labor shifts out $\Longrightarrow$ employment $\uparrow$ more than under flexible prices $\Longrightarrow$ Y $\uparrow$ more.
- But still multiplier below 1, unless non-separability between leisure and consumption (Bilbiie 2009, Monacelli and Perotti 2010).
- Still negative wealth shock $\Longrightarrow$ $C \downarrow$ (unless non-separable preferences) and labor supply shifts out $\Longrightarrow$ w could $\downarrow$ or $\uparrow$, depending on relative shifts of labor supply and demand.

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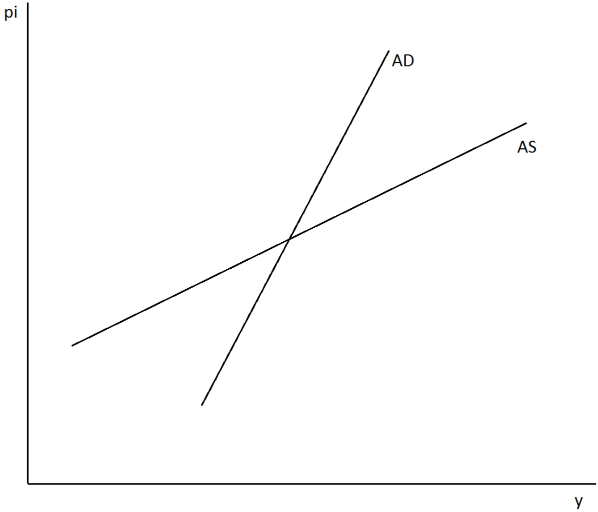
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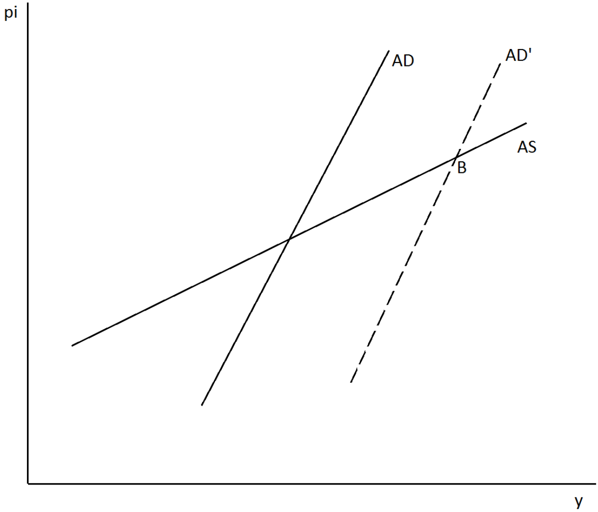

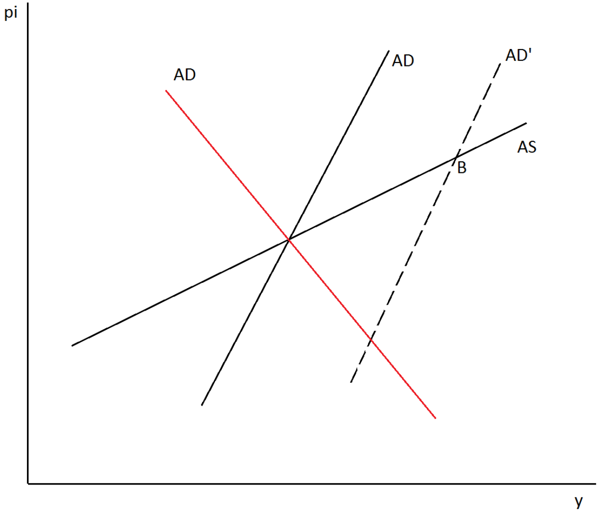
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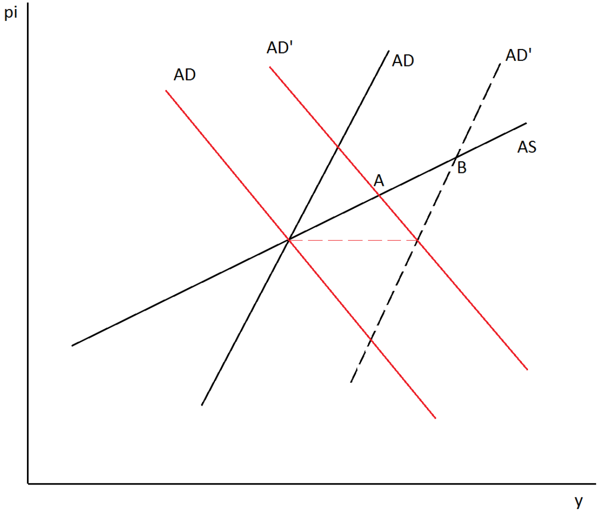

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- NB: If G expected to increase beyond ZLB, negative effect on Y. Reason: after ZLB, Taylor principle operative $\Longrightarrow$ expect future $C \downarrow \Longrightarrow$ future $MU_C \uparrow \Longrightarrow MU_C \uparrow$ now. .
- NB: Also, after ZLB Taylor principle operative $\Longrightarrow$ less π^e in the future .
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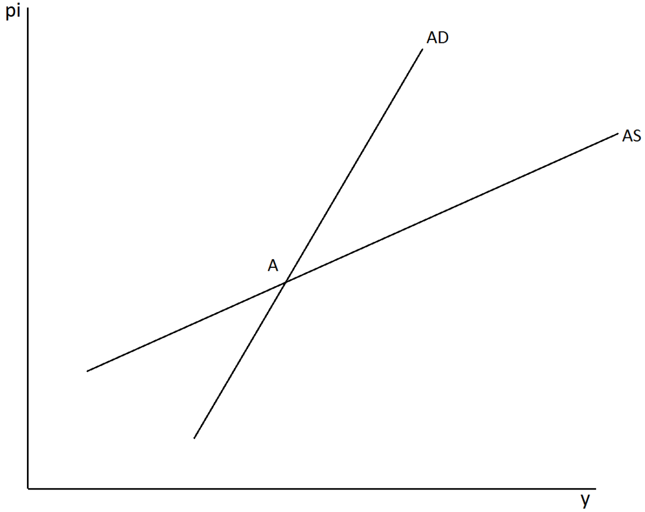

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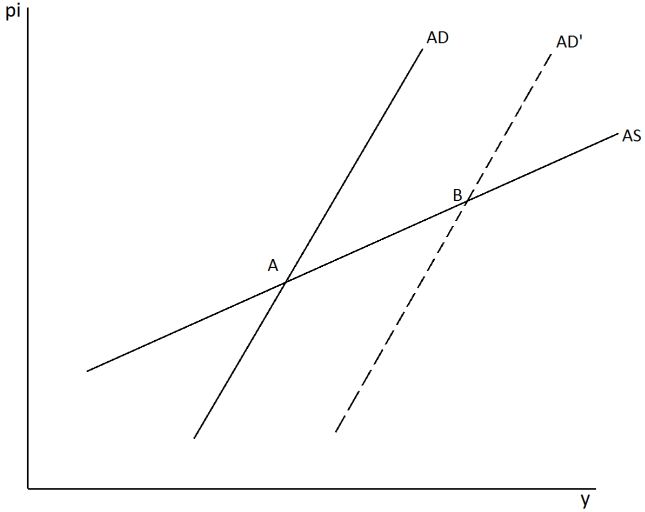

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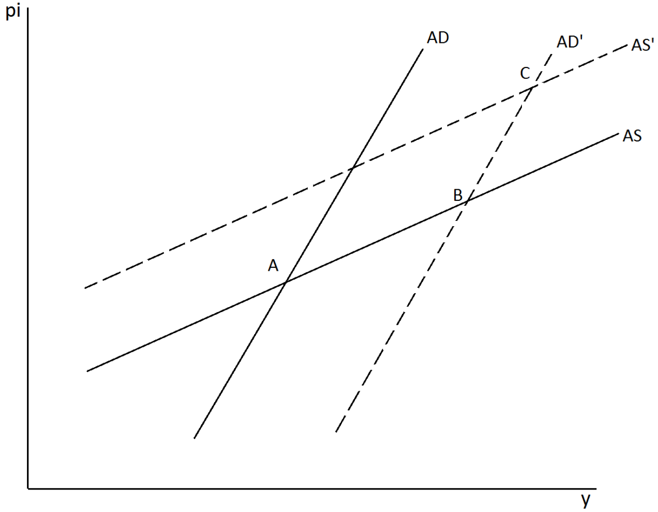

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- Intuition: $MC \uparrow \implies \pi \uparrow \implies$ with ZLB, $r \downarrow$.

Liquidity constrained agents: Gali, Lopes-Salido, Valles

- Now remove assumption (*iii*) (no liquidity costraints): assume that a fraction of all agents are "rule - of - thumb".
- The consumption of ROT agents depends on their disposable income, hence on their wage.
- Labor supply of forward-looking consumers still shifts out; with price stickiness, if (derived) demand for labor shifts out more, w can $\uparrow \implies$ consumption of ROT agents $\uparrow \implies$ if enough of them, aggregate C can $\uparrow$.
- For same reasons as above, $Y \uparrow$ more than in benchmark neoclassical case.

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- Three things:

1. Distributional aspects ("cut taxes to the poor because their propensity to spend is higher")
2. Look at the very long run
3. Welfare analysis

- All three are important contributions: distributional aspects, the long run and welfare were always unexplored territories in the previous papers on the issue

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- Get a combination of all previous results. Effects of ARRA in short run are larger:

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- But what prevents following strategy, given time path for ARRA: (i) prolong ZLB a bit (say 4 years): cost is minimal; (ii) increase distortionary taxation during ZLB: Y $\uparrow$ (see above); (iii) at end of ZLB, no extra debt has accumulated $\Longrightarrow$ no need to increase distortionary taxation after ZLB.
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