

**Comments on “The Effects of Fiscal Policy on  
Output and Debt Sustainability in the Euro Area:  
A DSGE Analysis” by Davide Furceri and  
Annabelle Mourougane**

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## What the Paper Does

- Poses the question: what was the impact of the fiscal stimulus in the Euro area?
- Develops an DSGE model of the Euro Area with fiscal features to address this question
- Concludes that the euro-area fiscal stimulus boosts GDP by 0.8% in 2009 and 0.6% in 2010. Public debt as a % of GDP rises by 1.8% in 2010
- Short-term multiplier effect strongest for government investment
- Nice paper! Demonstrates how DSGE models can be useful for getting out of the crisis

## Closer Look at the Fiscal Stimulus Result

- Average debt/GDP ratios in the OECD are now around 100% and deficit/GDP ratios around 10%
- The fiscal stimulus in the paper amounts to 0.6% on spending and 0.3% on taxes or transfer. It only contributes 1.8% to the debt/GDP ratios in 2010 – policy has been to allow the automatic stabilizers to work
- Euro area GDP is forecast to fall about 4% in 2009 and rise by 1.2% in 2010. According to the paper would this would have been  $-4.8\%$  and  $0.6\%$ , which is a significant effect despite the tiny impact on public finances
- Nature of Exercise: displacement from the steady state driven by instrument

## Main Features of Model

- Endogenous government bond rate

$$\text{Bonds : } B_t = (1 + ig_t)B_{t-1} + d_t$$

$$\text{Bond Interest Rate : } ig_t = i_t + \theta E_t d_{t+1}$$

$$\text{Cost of Capital : } i_t^k = ig_t + \delta \text{ Correct???$$

$$\text{Taylor Rule : } i_t = \rho i_{t-1} + (1 - \rho)(\text{usual stuff})$$

- Fiscal Rule: tax rates held fixed???. A stabilization rule for lump-sum taxes

$$T_t = \tau_1 \left( \frac{B_t}{Y_t} - b^* \right) + \tau_t d_t$$

## Other Features

Some ad hoc relationships:

- Unemployment Benefit:  $ub_t = \epsilon \log(GAP_t)$  – Not related to labour demand and supply (i.e. unemployment!)
- Non-Ricardian Mechanism – credit-constrained consumers
- **Both important!** They drive the automatic stabilizers and fiscal stimulus

## Suggestions for Model Development

- An **explicit banking sector** - put at centre a loan production function with bonds and capital providing collateral against which loans are made - see Goodfriend and McCallum, JME, 2007.e
- **Model Unemployment:** search-match approach?
- Estimate model by Bayesian methods - gives you a **probability** model (see Sims (2007)) which can be used to design robust monetary and fiscal rules for a return to normal times