



Discussing the FGB-LM Model

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Main structure of the FGB-LM Model

- Its “**core**” is a state-of-the-art **Dynamic Stochastic General Equilibrium (DSGE) model**, with many features.
- The “core” imposes results on an econometrically calibrated “**satellite**” component.
- This **top down** framework is calibrated to the E3ME forecast (as the baseline).
- One of the **benefits** of using a **GE** framework is that it allows for consistent **counterfactual experiments**.

Policy Analysis with DSGE LM model

- Some **examples** of counterfactual scenarios are:
 1. Technology shocks;
 2. Preference shocks, e.g., inter-temporal discount factor, import and export demand elasticities;
 3. Real and nominal pricing shocks.
- **Specific** examples aimed **towards labour** issues are:
 1. Subsidies that (a) reduce hiring costs (b) wage costs;
 2. Social contribution and other fiscal policy;
 3. Assumptions about the separation rate.
- **Note however** that all the above are **macro-level** examples, because only the “**core**” model **can** have an affect (i.e., “**satellite**” **cannot** affect).

An example of a policy simulation:

Simulate effects of Youth Guarantee in Italy

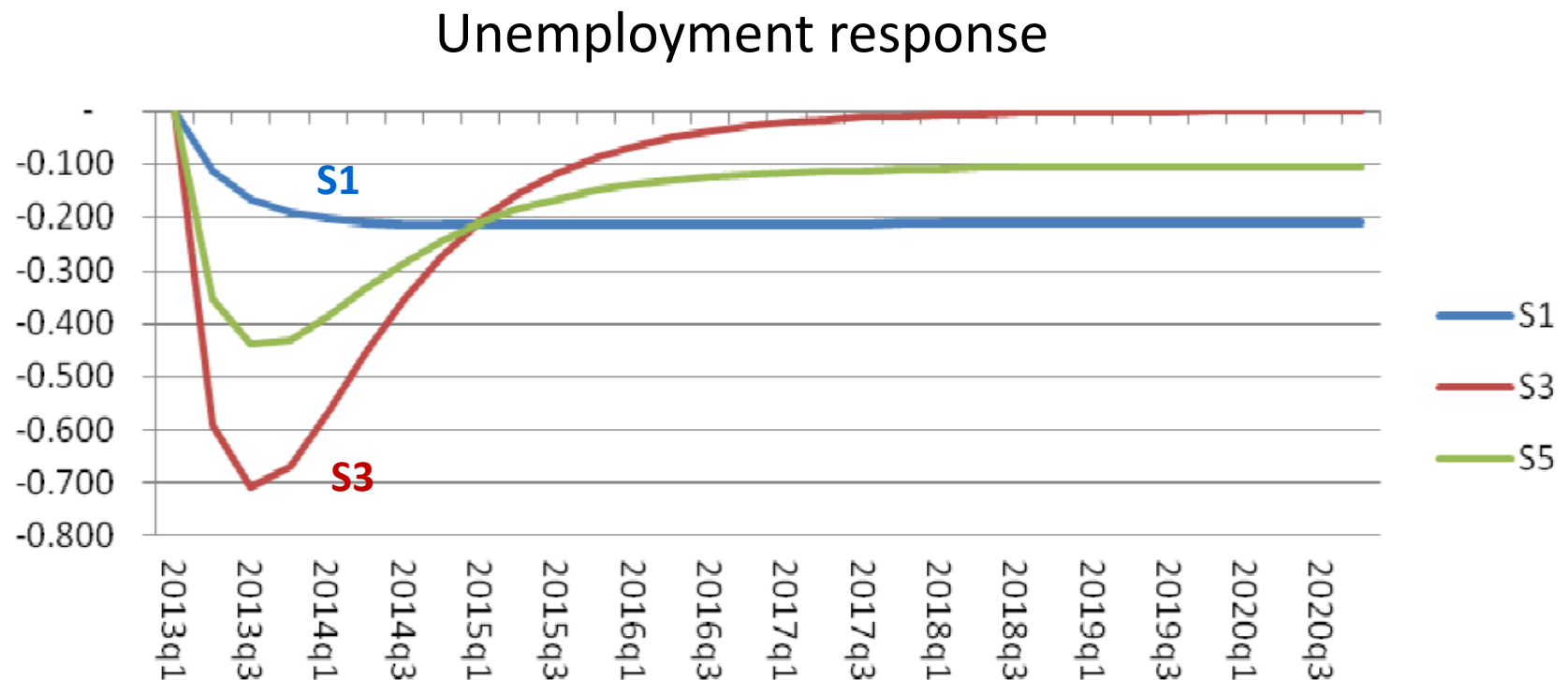
- Youth Guarantee (YG) program is targeted to member states with more than 25% youth unemployment (ages 15-25).
- Countries include: Ireland, **Italy**, Latvia, Lithuania, Portugal, Slovakia, and Spain).
- Overall fund in EU is 8 billion Euros.
- The **Italian** portion of the fund will be **1.5 billion** Euros (1 for yr 14/15, 0.5 for yr16/20) + **0.8 billion** Italian Gov. finance.

Various scenarios are possible

Sc	Permanent ALMP	Persistent, but temporary	Fiscal financing	Deficit financing
	Hiring subsidy	Wage subsidy		
S ₁	Yes 100% YG cost	No	Yes	No
S ₃	No	Yes 100% YG cost	Yes	No
S ₅	Yes 50% YG cost	Yes 50% YG cost	Yes	No

Results suggest that

- S3 is best for short term policy, but worst for long term.
- S1 is least responsive in the short term, but best for long term.

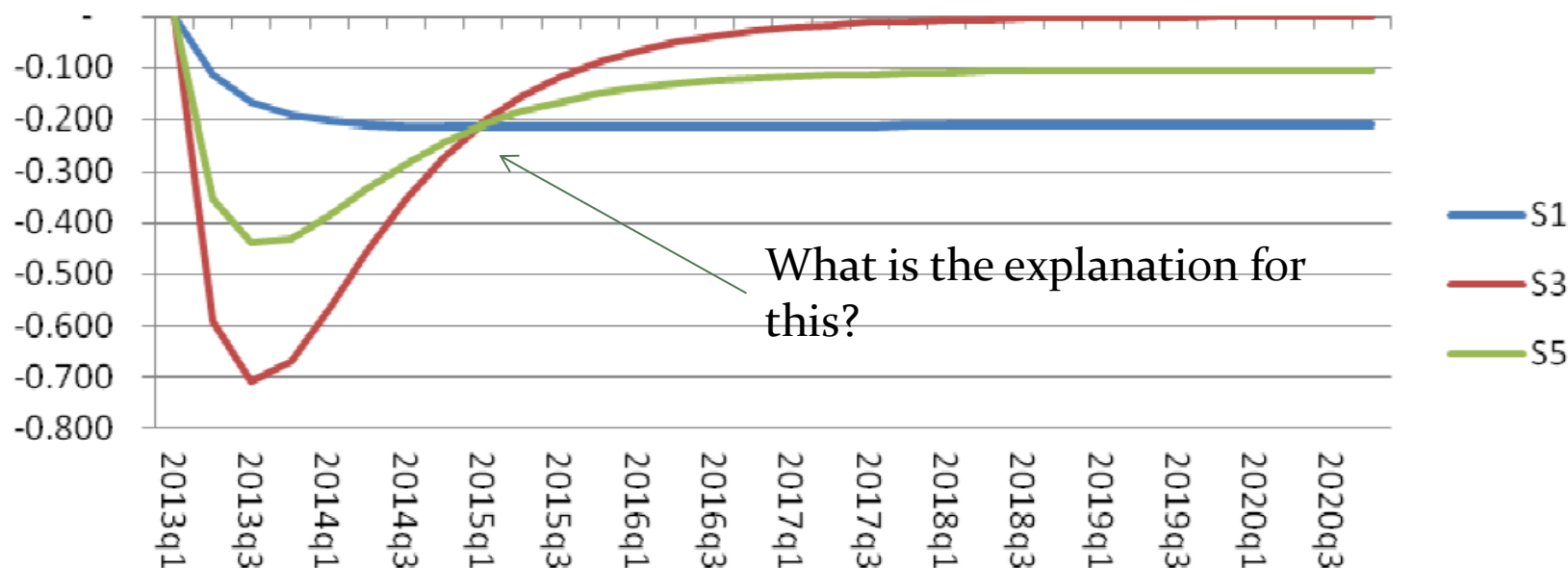


A few issues for discussion (1/3)

- An interesting usage of the model, with a nice macro policy example of Italy.
- Useful for analysis within a **business cycle** framework that shows the **impulse response** of various parameters:
 - E.g., employment, hiring, and unemployment.
 - The impulse response is the durations of time it takes to converge towards a steady-state.

A few issues for discussion (2/3)

- Short comment about the paper (in its current form):
 1. I'm worried that each scenario uses a different monetary value, which makes comparing scenarios impossible (or misleading). We then can **not** say that S1 is better than S2 or S3.
 2. Why do all scenarios go through the same point, i.e., 2015q1? This needs to be checked.



A few issues for discussion (3/3)

3. As previously mentioned, this GE approach is great for **top down** simulations within the “core” model, **imposing** on the “satellite” component.
 - However, a **bottom up** (micro-level) approach from the “satellite” towards the “core”, **cannot be assessed** using this framework.
 - This is highly **problematic if** an organization such as **CEDEFOP wants** to pick and support **specific** “winning” sectors or households. How do we deal with this?
4. I wonder how a **skills mismatch model** that considers **qualification** and **occupation** issues can be implemented using this DSGE framework? This is another practical issue which CEDEFOP cares about?

Skills Mismatch CGE Model

- We need to frame qualifications and occupations within markets (i.e., their supply and demands). Their wages and return to qualification will be their market clearing prices.
- Some policy simulation could ask:
 - a) How would increases/decreases in qualification affect occupations within a GE model?
 - b) What are the spillovers that these channels have on the economy and vice versa?
 - c) How do we considering the linkages between age, qualification and occupation... (explain).

Future work IER/CE are currently doing

- IER has integrated a Skills Mismatch CGE model into the E3ME model (work in progress).
- This model still has issues similar to FGB where the CGE model is the “satellite” model which has no spillovers back up to the “core” E3ME.
- IER is thinking of experimenting with a fully fledged CGE model which would integrate a Skills Mismatch model.

Discussion

- DSGE model is a complex state-of-the-art model.
- We need to find ways to build this type of GE model which deals with more sector specific or household specific policies.
- We need to build-in a skills mismatch model into GE.

Further Information

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