

Discussion of

Taking DSGE models to the policy environment

by Alvarez-Lois, Harrison, Piscitelli and Scott

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What does the paper do?

- Issue: models are approximations. How can we take them seriously? Three approaches:
 - Shocks In Parameters (Smets and Wouters);
 - Generalised Measurement Errors (Ireland);
 - Core Non Core (BoE).

Model usage for policy analysis vs. academic contribution

- Contributions to the literature only focus on a particular point – and disregards other features as uninteresting.
- Regular policy analysis subjects the model to much harder tests – impossible to pass?
- Ideal properties of a model for policy analysis: robustness.

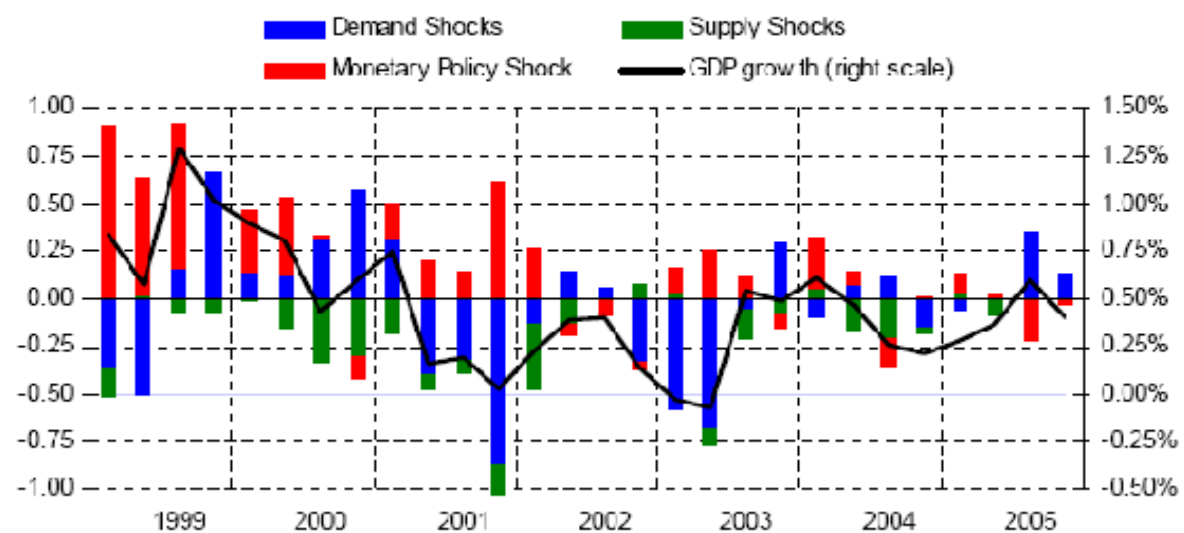
Does the paper declare a winner?

- No (except for encompassing). Rather than "selling" a specific approach, the main point is to ask (fundamental) questions.
- Any answer is likely to depend on personal convictions:
 - if we consider the existence of as many structural shocks as variables plausible, then SIP;
 - if we believe that few factors move the world, then perhaps GME ...;
 - ... or CNC, if we are even less willing to take the model at face value and feel uneasy about a world where dynamics are entirely driven by shocks.

Problem could be generalised further

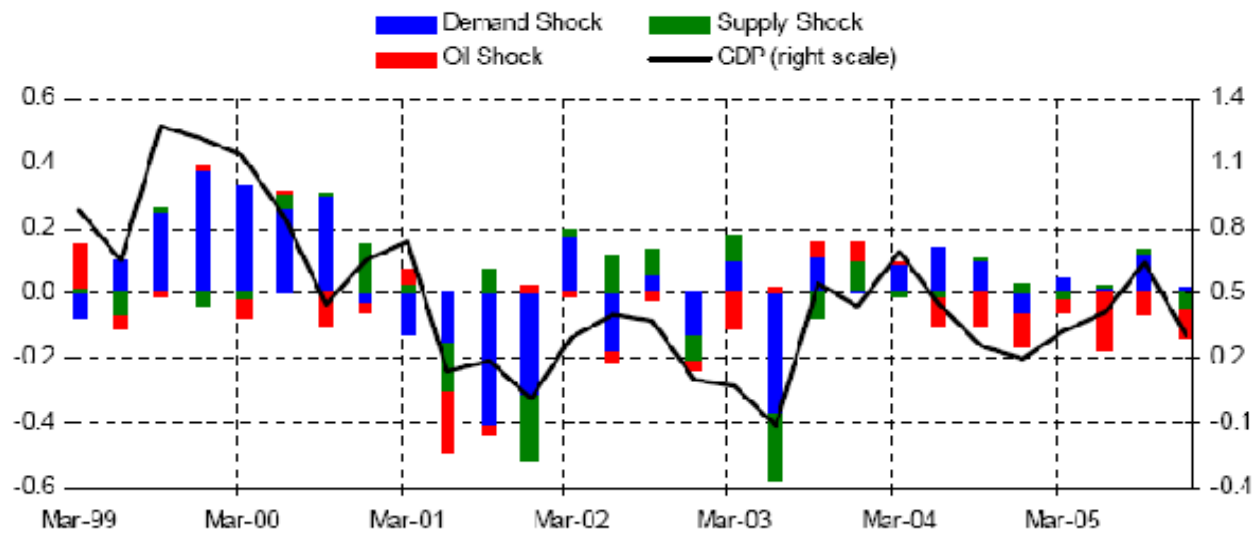
- In the paper, the DSGE model is taken as given. What if we are unsure between different specifications (e.g. CMR vs. SW)?
- CNC is a way to weaken model restrictions on the data; but one may want to generalise to other approaches – e.g. non-microfounded models, a SVAR, a factor model.
- And how about nonlinearities: e.g. conditioning assumptions in projection exercises.

Chart 10. Output - Contribution of shocks to deviation from historical mean
(quarter-on-quarter growth, quarterly data)



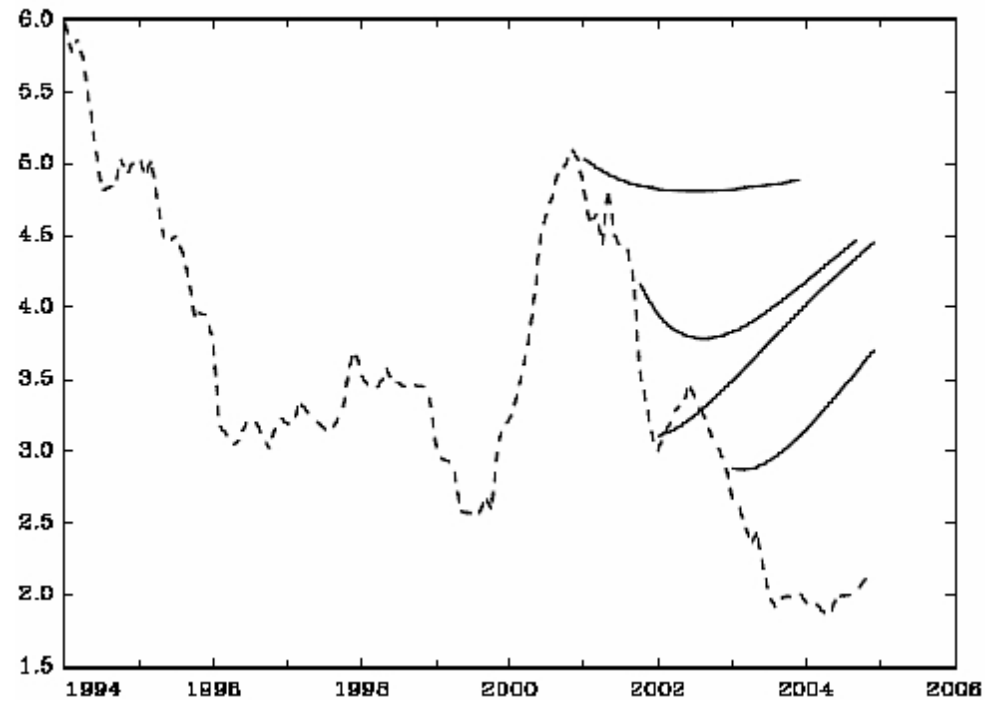
Source: ECB staff.

Chart 3. GDP - Contribution of shocks to deviation from historical mean
(quarterly data; quarter-on-quarter growth)



Source: FCB staff

1-month rate and implied forward rates at various points



A few (biased?) comments

- In the CNC approach:
 - To improve the model fit, should one improve the core model, or the non-core add-on? if real house prices matter for consumption, why not modelling them explicitly?
 - Is there a risk of interpreting as casual relationships the correlations identified in the non-core part?
 - How structural should we go? If a wage shock must be an observed change in union bargaining power (and what causes changes in bargaining power?), should a technology shock be the iid invention of the transistor?

A few (biased?) comments

- In the SIP approach:
 - One does not need to rely on unobservable factors to "tell a story" for the benefit of policy makers: e.g. a "preference shock" is an "increase in consumption above past regularities"
 - The possibility of introducing judgement through iid measurement errors remains available.

Conclusion

- Stimulating paper. Taking models to the policy environment is certainly a relatively unexplored topic (uninteresting for academics?).
- Does an ideal approach exist? Answer may turn out to be different in different institutions.