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External evaluation of MAKRO

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External evaluation of MAKRO

- The board of MAKRO commissioned an external evaluation of the model
- External evaluation team:
 - Erika Färnstrand Damsgaard, *Konjunkturinstitutet*
 - Douglas Laxton, *Formerly IMF, currently Saddle Point Research*
 - Werner Roeger, *Formerly EC, currently DIW, EIIW and VIVES KU-Leuven*

External evaluation of MAKRO

The expert group must address the following questions:

1. Do the theoretical modeling and empirical strategy live up to international standards considering the model's intended areas of application?
2. Are the qualitative and quantitative properties of the model response to shocks theoretically and empirically sensible?

Basis for evaluation of MAKRO

- Written material:
 - Descriptions of the modeling strategy and empirical strategy
 - Background papers on the empirical strategy
 - Technical documentation of the model
 - Etc.
- Presentations of the model at meetings in June, August and October of 2021
- Additional simulations and sensitivity checks provided by the modeling team at our request

Preview of the assessment

1. Do the theoretical modeling and empirical strategy live up to international standards considering the model's intended areas of application?

-YES

2. Are the qualitative and quantitative properties of the model response to shocks theoretically and empirically sensible?

-YES

Preview of the assessment

“ The external evaluation team was very impressed that the DREAM modelling team was able to develop such a sophisticated overlapping generations model”

Intended uses of MAKRO

- Medium and long-term macroeconomic projections and analysis of public finances
- Impact assessment of policy measures and exogenous shocks
- Framework to help impose macroeconomic consistency in both near-term projections and longer-term projections

but:

- MAKRO is not intended as a tool to generate near-term forecasts
- The existing version of MAKRO is not intended to be used for studying effects of policy measures on labour supply and structural unemployment

Question 1: Do the theoretical modeling and empirical strategy live up to international standards considering the model's intended areas of application?

- Theoretical modeling
 - Danish economy
 - the rest of the world
- Empirical strategy
 - behavioural parameters
 - level parameters

Question 2: Are the qualitative and quantitative properties of the model response to shocks theoretically and empirically sensible?

- A foreign shock
- A labour supply shock
- A permanent change in the price level

Overall assessment of MAKRO

- The MAKRO modeling project is very ambitious
- We conclude that the theoretical modeling and empirical strategy of MAKRO live up to international standards considering the model's intended areas of application
- Overall, the qualitative and quantitative properties of the model response to shocks are theoretically and empirically sensible
- We would like to applaud the great collaborative efforts of people in academia and the Ministry of Finance

Thank you!

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