Key ingredients and elements to inform future investments in macroeconomic modelling for central banks ?

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Questions

- How should models be designed?

- How best to align model development with policy priorities?

- How to invest in skill development and encourage "risky" projects?

I will take management & organizational view

How should models be designed?

- **Frontier (experimental) models**: Small, preferably theory based, address specific questions

- **Policy models:** Medium sized, relatively adaptable, possibility to flexibly vary key assumptions, (continuous) empirical evaluation important

- **Forecasting models:** Possibly large, adaptable and scalable, must fit and provide value added to the forecasting process. Can be used also in policy experiments.

How best to align model development with policy priorities?

- What are current and longer-term policy priorities? Which are the Achillean heels in current models? What role should the model(s) play in the policy process?

➡️ Follow <u>closely</u> academic research and policy discussions

➡️ Enforce dialogue between researchers and those responsible for policy

➡️ Understand that even adaptation of existing models takes often <u>long</u> time

How to invest in skill development and encourage "risky" projects?

- Recruitment and collaboration with academics and other institutions important for updating the organisations' modelling skills

- Risky projects can fail and often take more time than less-risky ones.

    ➡️ Provide resources (time & effort) accordingly, think more in terms of "frontier models"

- Reward!

Some examples – Bank of Finland

- ## Frontier (experimental) models

  - Elfsbacka-Schmöller, M. & N. McClung: Can Growth Stabilize Debt? A Fiscal Theory Perspective, BOF, DP 2/2024.

  - Takalo, T., T. Tanayma, O. Toivanen: Welfare effects of R&D support policies, BoF DP 2/2022 .

- ## Policy models

  - Nelimarkka, J.. and O-M., Laine: The effects of the ECB's pandemic-related monetary policy measures, BoF Econ Review, 4/2021.

  - Kokkinen, A., M. Obsbaum, Mäki-Fränti, P. Bank of Finland's long-run forecast framework with human capital, Bof Econ Review 10/2021.

- ## Forecasting models

  - Kilponen, J., S. Orjasniemi, A.. Ripatti, F. Verona, A. Silvo: The Aino Model 2.0 / 3.0, BoF DPs 16/2016, 9/2020.

  - Itkonen, J. and P. Juvonen, Nowcasting the Finnish economy with a large Bayesian vector autoregressive model, BoF Econ Review 6/2017.

Thank you!

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