

Macprudential Modeling - the Basics

Jaromir Benes jaromir.benes@gimm.institute

Tomas Motl tomas.motl@gimm.institute

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Modeling

- What's special?
 - How is it different from other financial regulation?
 - Where are the key problems today?
 - Where is the low-hanging fruit?
 - What is inherently difficult?
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- Usual macro models do not work for macropru

Macro

- Linear model behavior
- Most likely scenarios
- "Usual" economy behavior
- Flows only
- Business cycle
- Optimal policy

Macroprudential

- Non-linear model behavior
- Adverse, downside scenarios
- "Exceptional" economy behavior
- Flows and stocks
- Financial cycle
- Robust policy

- Macropru uses very different tools
- Complements, not substitutes

Financial Stability

- Bottom-up approach
- No macro-financial feedbacks
- Microregulation at the bank level

Macprudential

- Top-down approach
 - Explicit macro-financial feedbacks
 - Macroregulation at the level of the whole financial system
 - Macroprudential policies
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- Non-linearity
 - Changing regulation, technology
 - Large differences across countries and time
 - Estimation difficulties:
 - More data points needed
 - Less data points available
 - Non-measurability of key inputs:
 - We cannot really "forecast"
 - We can do scenarios
 - No easy policy response functions:
 - Robust policy
 - Lack of clear numerical objective
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- Endogenous macro-financial feedbacks
 - Describe real economy, financial sector, interlinkages
 - Non-linearity
 - Explicit description of balance sheets
 - Structural models
 - Strong link to regulations, data
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- Stuck between macro and FinStab
 - Different tools, mindset, language
 - Lack of commonly accepted modeling frameworks
 - Lack of endogenous feedbacks, iterative process
 - Reliance on econometrics, unstable relationships
 - Lack of data
 - Sectoral PDs, LGDs, interest rates, ...
 - Disconnect across countries
 - We want to help!
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In macro, we have:

- output gap
- natural rate of interest
- inflation deviation from target...

Commonly understood concepts, based in certain modeling framework that everyone is familiar with.

Macropu modeling does not yet have that.

Even the "credit gap" is not as well theoretically founded as e.g. the output gap.

- Has all the ingredients mentioned above
- Modular
- Maleable - can be fitted to particular economy
- Semi-structural - developed with applications in mind
- Constant development
- Applied in several countries
- War-tested