

Consultancy to Develop and Implement a
Macroeconomic Model for Lesotho (DIMMoL)

Macro-Econom(etr)ic Modelling

Part 1

Dr. Stefan Kooths
DIW Berlin – Macro Analysis and Forecasting

Course program

- Introduction
- Outline of macroeconom(etr)ic models
- Macroeconomic framework
- Econometric methodology
- Applied econometrics with EViews
- Lesotho case studies

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Fields of interest

- **Macroeconomics**
(model building)
- **Econometrics**
(applied mathematical statistics)
- **National accounting**
(data sources)
- **Country-specific knowledge**
(institutions, industries, policy regimes)

Recommended literature

- Blanchard, O.: Macroeconomics, 3rd ed., 2003.
- Wooldridge, J. M.: Introductory Econometrics – A Modern Approach, 3rd ed., 2006.
- Enders, W.: Applied Economic Time Series, 2nd ed., 2004.

- Matlanyane, R. A.: A Macroeconometric Model for the Economy of Lesotho: Policy analysis and Implications, 2004. (<http://upetd.up.ac.za/thesis/available/etd-04182005-091509/>)

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Introduction of participants

- Who are you?
- Where are you from?
- What are your specific questions and modelling needs?

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Scope of macroeconometric models

- **Forecasting**
 - short-term behaviour of key macroeconomic variables
 - long-term trends
- **Policy analysis**
 - simulating the potential impact of alternative policy measures
 - basis for long-term planning
- **Note:**
 - ⇒ both aims are not always harmonic
 - ⇒ "one size fits all" doesn't apply (different questions, different models)
 - ⇒ generally: „small is beautiful“ (robustness more important than detailed precision)

Building blocks, fundamental characteristics

- Institutional sectors (actors, agents)
- Markets (intermediaries) and regulations
- Time horizon and dynamics
 - Equilibrium
 - Adjustment processes
- Expectation formation

Institutional sectors

- Private households
 - including non-profit organizations
- Enterprises
 - independent of ownership
- Public sector
 - government
 - social security systems
- Rest of the world (external sector)

- Financial sector

Markets and regulations

- Goods market(s) \Rightarrow production = primary income
 - sectoral disaggregation \Rightarrow price formation (inflation rate)
- Labor market(s) \Rightarrow (nominal) wage setting
 - disaggregation by skills
- Financial markets
 - capital market (implicit) \Rightarrow (nominal) interest rates
 - money market \Rightarrow (nominal) exchange rates, foreign reserves
 - foreign exchange market
- Income Redistribution \Rightarrow disposable income

interconnection of markets:
direct vs. indirect effects

Sector interactions via markets: circular sectoral flow chart

