



**4<sup>th</sup> NBRM Research Conference**  
**Structural Rigidities, Growth and**  
**Monetary Policy**

*Discussion*  
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# Techniques, databases, and models of MP

- Structural Policies and Economic Growth: the Impact Product and Labor Market Policies on MFP, Investment and Labor Market Outcomes (*Balazs Egert*)
- Trade in Goods, Globalization in Production Structure and Inflationary Dynamics: Cross Country Evidence (*Hulya Saygili*)
- Price and Wage Rigidities in the Republic of Macedonia: Survey Evidence from Micro-Level Data (*Florian Huber, Magdalena Petrovska*)

# The Impact of Structural Reforms on Long-term Growth

- Proposes a framework to support evidence based policy advised to evaluate the effects of structural policies at country level and globally
  - Making reference to the inclusion of developing countries in the analysis
- Broad discussion of problems in modeling economic behavior in the presence of:
  - Missing and low frequency data,
  - Incorporation of Institutional indicators
  - Discussion of literature and results of previous studies
- Methodology
  - Panel (unbalanced) error-correction methodology
  - The role of institutions (principal component analysis)

# Discussion

- Bountiful of information and discussion
  - Problems of estimation with missing data vs. discussion of the methodology and estimation
  - Role of institutions and development economics
- The exogeneity status of additional channels...
- Panel cointegration vs. “Global Var” in a heterogeneous environment.
- WB indicators vs. alternative indices
  - Global Competitiveness Report; Economic freedom index; Economic Transition Report; ...

# Trade in Goods, Globalized Production Structure and Inflation Dynamics

- How and to what extent globalization influences inflation dynamics.
  - Trade openness
  - Financial integration
- Methodology: panel estimation with fix effects
- Conclusion: globalization and financial markets have become more relevant to inflation than domestic output gap!

# Discussion

- Very elegant theoretic model & motivation
  - The role of the assumptions
    - Potential endogeneity problems
      - Perfect foresight assumption
      - The lower the deviation in bond prices, the higher the integration
    - Potential autocorrelation
      - Financial integration and output gap (general consensus: financial integration defines the trend of economic growth)
- Recursive estimates
  - Robustness vs. economic explanation

# Price and Wage Rigidities survey evidence MCMC

- The relative influence of important determinants on the frequency of price changes in Macedonia
- Micro-level survey data
- Bayesian ordered probit model (MCMC)
- Higher price and wage flexibility depend on:
  - Higher competition pressure
  - Exposure to foreign sales
  - Lower labor cost share
- Companies have adjusted to the global financial and economic crisis.

# Discussion

- Methodology
  - Connection between the theoretic discussion and practical implementation of the model
- Discussion Macro developments vs. Micro characteristics of the enterprises
  - Tradable (manufacturing) vs. nontradable (construction& services); large vs. small firms
- Some of the results could also benefit from further discussion
  - Hypothesis vs. results; firm behavior before vs. after crisis.



# Implications for central bankers

- Structural changes affect the conduct of monetary policy
  - Globalization (trade & financial),
    - *Foreign prices & foreign interest rates*
  - Structural changes in domestic economy
    - *Labor markets, wage bargaining, demographics of labor force*
  - Industry competitive structure
    - *Prices and wages rigidities*
  - Rational vs. adaptive expectations
    - *Expectations, output gaps and inflation, central bank transparency*
- Monetary policy must adjust accordingly to these changes
  - Potential structural changes and proper implementation in the policy models,
  - Potential gaps in the materialization of these long term trends.
- The value of econometric analysis for policy analysis must be twofold
  - Good estimation of economic outcomes & forecasts of endogenous variables
  - Accurate inference of the best (among many competing) models...