STICKY WAGE MODELS AND LABOR SUPPLY CONSTRAINTS

Zhen Huo, José-Víctor Ríos-Rull

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CONTEXT

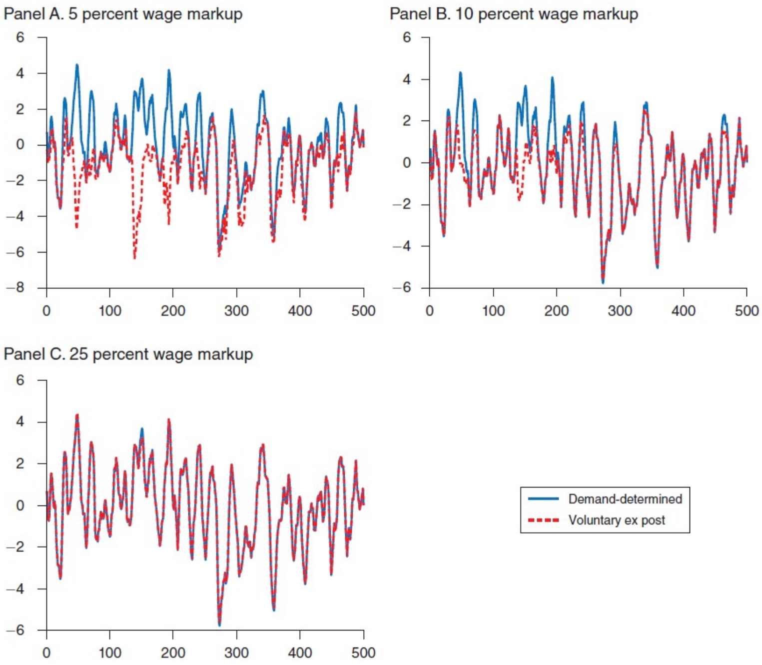
- In NK models with sticky wages, labor is determined by demand side.
- Implicit assumption: Households are willing to work at whatever wage rate specified.
- In (popular) DSGE models, some labor provided against will of workers; i.e. labor supply constraint violated.
  - Negative joint surplus
- This leads to bilateral inefficiency, which is problematic.

QUESTION

- What is the natural alternative to the violation of the labor supply constraint?
  - Calvo model
  - Rotemberg model

ANSWER

- Wages are sticky à la **Calvo** model
  - Dréze equilibrium: Amount traded determined by minimum of supply and demand
- **Rotemberg** models with adjustment costs
  - Let unions internalize the constraint → Labor supply constraint is not violated


Panel A. 5 percent wage markup
Panel B. 10 percent wage markup
Panel C. 25 percent wage markup
Demand-determined
Voluntary ex post

POSITIONING

- Prior literature has explored violations of the participation constraint.
  - Models with bargaining
- This paper:
  1. Monopolistic competition (instead of perfect competition)
  2. Explores the qualitative properties of Dréze equilibrium (instead of equilibrium existence and multiplicity)

CONCLUSION

- Labor supply constraints frequently violated in models with wage rigidities → bilateral inefficiency
  - 19% of labor provided against will of workers
  - Pareto improvements may be possible
- How is surplus shared by firms and workers?