Discussion of ”Optimal Prudential Taxation” by Belchior and Reis

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Summary reaction

- Interesting and concise paper on important topic! Relevant, especially for most European economies.
- Highlights the importance of intratemporal distortions in the SOE.
- Reverses non-zero capital control tax result obtained by Schmitt-Grohe, Uribe (2016).

Comments:

- Usual concern with Ramsey approach to optimal taxation: results are sensitive with regards to the set of available instruments.
- Ad-hoc downward wage rigidity friction.
- What are the quantitative implications?

Background

- **Mundell's trilemma:** an open economy can not have an independent monetary policy together with fixed exchange rate and free capital mobility.

- Frictions lead to inefficiencies, which can not be corrected.

- Friction in this paper: **nominal wage rigidity**. Leading to inefficiency of allocation: **involuntary unemployment**.

- Belchior and Reis: part of the story behind recent periphery European crisis.

Model overview

- Small open economy. Representative agent with endogenous labor/leisure choice. CRS technology. Exogenous gov. expenditure to finance.

- Assets: state contingent bonds, capital and international lending at exogenous rate.

- Fiscal instruments: (i) labor income tax τ_t^l, (ii) capital income tax τ_t^k (iii) consumption tax τ_t^c (iv) capital control tax τ_t^d.

- Nominal rigidity of wages together with fixed exchange rate imply real wage rigidity:

$$w_t \geq \boldsymbol{\gamma} w_{t-1}$$

Main results

Solve Ramsey problem imposing two **key assumptions:**

1. Consumption taxes undo the intertemporal wedge arising from changes in the consumption elasticities over time.
2. Whenever the wage-rigidity is binding, the level of employment is determined by firm's demand.

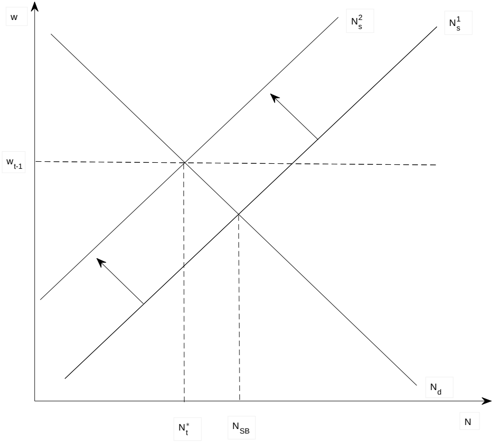
Main results:

1. Labor income tax is state contingent. Depending on the state of the economy it is either **prudential or reactive**.

2. Optimal capital income tax is **non-zero**.

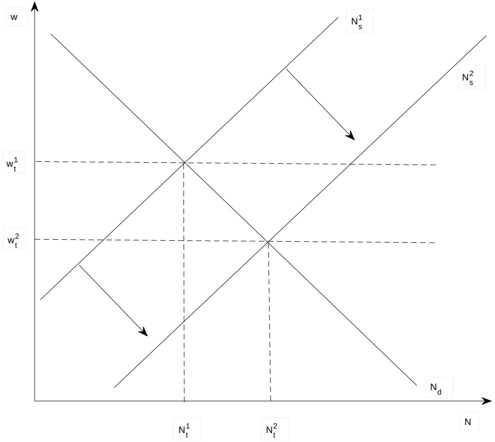
3. Capital control tax is **zero**. The result survives as long as there exists an instrument to affect the relative price of leisure.

Reactive labor income tax



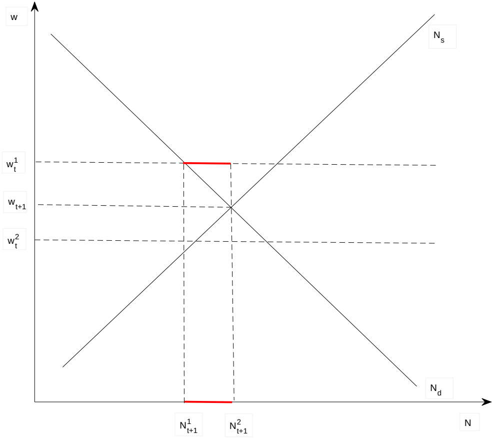
- If the wage-rigidity constraint is binding, increase of labor income tax reduces labor supply and is non-distortionary.

Prudential labor income tax



- If the wage-rigidity constraint is slack, reduction of labor income tax lowers wages and relaxes the next period constraint.

Prudential labor income tax



- If the wage-rigidity constraint is slack, reduction of labor income tax lowers wages and relaxes the next period constraint.

Sensitivity with respect to the fiscal instruments

- Ramsey approach by construction (as opposed to Mirrlees) restricts the set of available instruments.
- Balchior and Reis key restriction: no payroll taxes, since they are **politically infeasible**. With payroll tax the real wage rigidity is irrelevant.
- How about **corporate income taxes?** They are ubiquitous across countries. Usual tax base: profits net of capital depreciation and investment costs.
- Would they improve welfare relative to the set of instruments in the paper? Can they mitigate the real wage rigidity?

Ad-hoc nominal wage rigidity

- **Micro data evidence:** nominal rigidity is pervasive at establishment-level in the US - Fallick, Lettau, Wascher (2016)
- In the paper, the nominal and hence real wage rigidity is imposed on the allocation, rather than derived from the properties of the wage contract. Clearly an ad-hoc, but crucial assumption!
- Need **micro-foundations** of wage rigidity. What is the proper way to micro-found the wage rigidity for the purpose of the optimal taxation literature? Requirements:
  - Basic consistency with micro evidence
  - Simple enough to apply all the standard techniques
- Would the results in the paper survive under more realistic assumption that wage rigidity stems from the contract between workers and firms?

Quantitative magnitudes?

- Theory paper. Still, at least some numerical or calibrated example would help.
- What are the quantitative implications for conducting fiscal policy over the business cycle? What are the welfare gains, relative to Schmitt-Grohe, Uribe (2016)?
- **My conjecture:** in a calibrated version of the model one would need very large variations in labor income tax to mitigate the impact of the downward wage rigidity.
- Why? **Micro-evidence** on labor supply elasticity suggest it is at best **modest** - Chetty et. al. (2011), (2013). Unresolved puzzle: gap between micro and macro labor elasticities!

Conclusions

- Very interesting paper on important topic. Simple but powerful idea.
- Needs some more work on the quantitative side as well as on the modelling choices of fiscal instruments and wage frictions.