

# Capital Account Openness and Unemployment

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# The general question

- How does capital mobility affect labor market outcomes?
- Relevant, Topical!

# Outline

- A brief summary
- On the theory
- On the empirical work
- More on the interaction between capital flows and labor markets

# The main idea

- Capital and Labor are complement in production
- Capital is freely mobile, labor is not

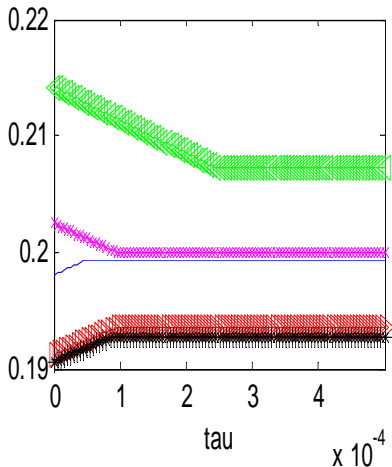
# The main idea

- Capital and Labor are complement in production
- Capital is freely mobile, labor is not
- Consider 2 countries: one with good (flex) and one with bad (rigid) labor markets
- With openness: capital flows from bad labor market to the good one, amplifying differences in LM outcomes
- Openness good for flex LM, bad for rigid LM

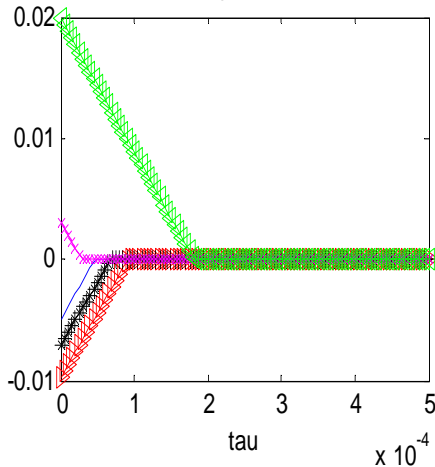
# Theory

- Mortensen Pissarides model in a small open economy
- Comparative static wrt taxes on capital flows

Unemployment



Net foreign asset/GDP

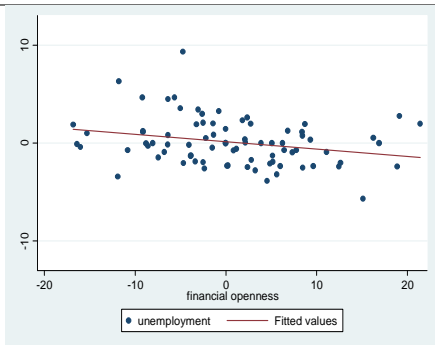


## Empirical work

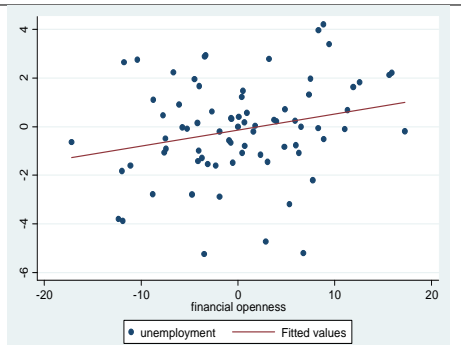
- Regress  $U$  (5 years period) on  $KAOPEN$  and  $LMR*KAOPEN$
- After controlling for country/time FE:  $KAOPEN$  signif. and negative,  $LMR*KAOPEN$  signif. and positive.
- For countries w/out rigidity: more openness  $\rightarrow$  less unemployment.
- For countries with rigidity: more openness  $\rightarrow$  more unemployment

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Flex countries



Rigid Countries



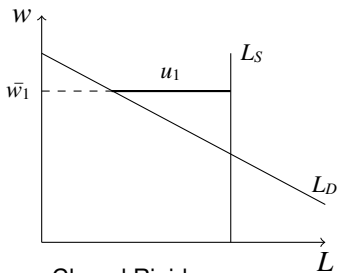
## On the theory

- Is the MP machinery really necessary to make the point?
- Main advantage of MP is that it generates unemployment, but can generate unemployment in a simpler neoclassical model with sticky wages

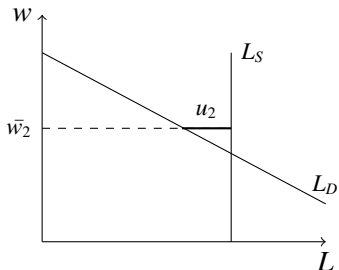
## A static minimalist sticky wage model

- Each country endowed with  $K$  and inelastic labor supply  $L = 1$
- Firms operate standard CRS  $F(K, L)$
- Wages above the market clearing wage, with  $w_1 > w_2 > w_{mc}$
- In closed economy capital is immobile (rental rate differential)
- In open economy capital is mobile hence rental rates (and wages) equalized across countries

# Model solution

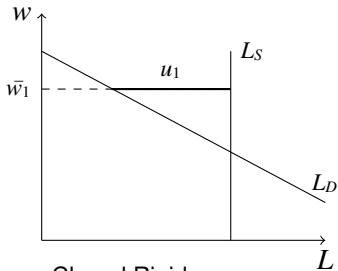


Closed Rigid

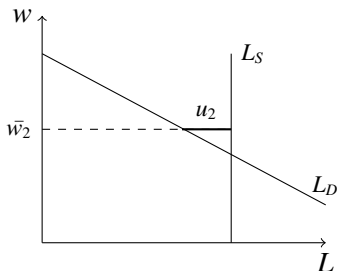


Closed Flex

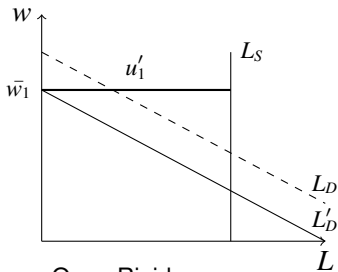
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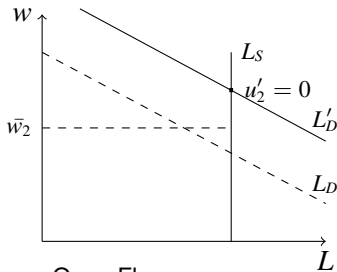
Closed Rigid



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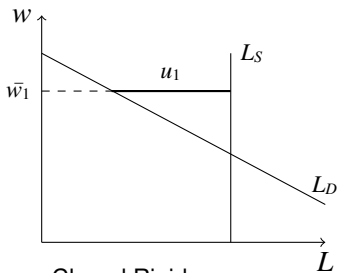


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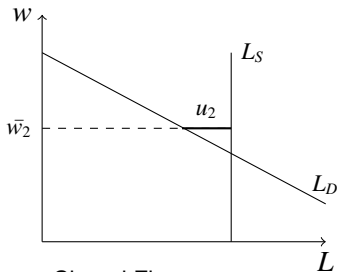


Open Flex

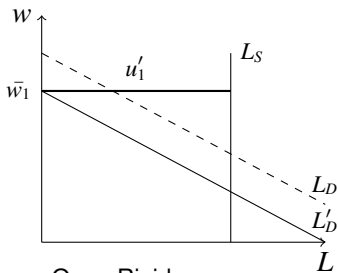
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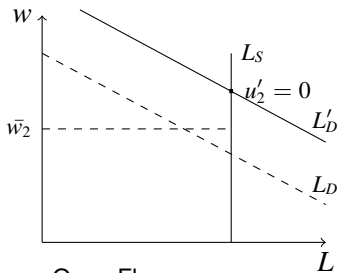
Closed Rigid



Closed Flex

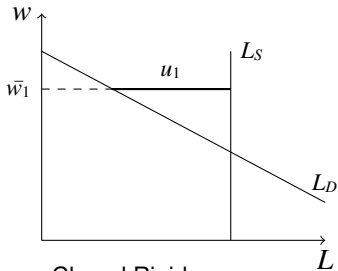


Open Rigid

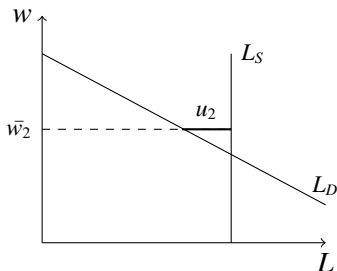


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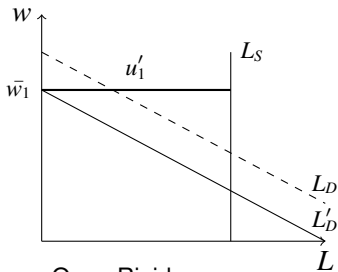
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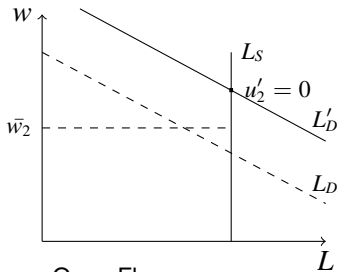
Closed Rigid



Closed Flex



Open Rigid



Open Flex

# Results

- Opening up capital mkts reduce  $u$  in flex, increase  $u$  in rigid
- Welfare increases in flex, falls in rigid (overall pie smaller as there is more idle labor)
- Rigid loses labor income, and some of the returns from capital that is now shipped abroad are appropriated by workers in flex

# Results

- Opening up capital mkts reduce  $u$  in flex, increase  $u$  in rigid
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- Rigid loses labor income, and some of the returns from capital that is now shipped abroad are appropriated by workers in flex
- Qualitative insights can be made with a much simpler (at least for me) model
- Model can easily be made quantitative



## Two comments on the empirical work

- Evidence seems strong but there are no names on the dots, i.e. can you point to a few countries that drive these results? (relevant for policy advice!)
- Should look more carefully at evidence on current account/capital inflows

## My attempt to put names on the dots

- Select countries/periods with largest changes in Chinn Ito index, and divide them in rigid/flex (using past unemployment)

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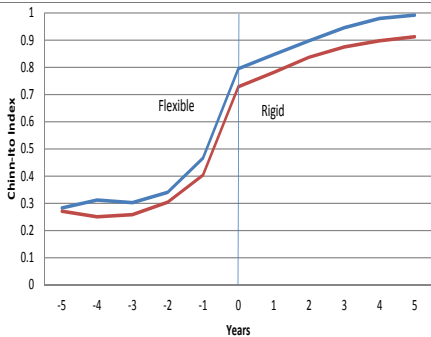
### RIGID LIBERALIZERS

	Avg Unemp	Year Lib.
TTB	20.4	1993
BOL	17.68	1988
JAM	15.86	1997
SPA	17.22	1993
BUL	14.7	2006
DR	14.8	2003
SVK	17.14	2003
IRL	15.6	1993

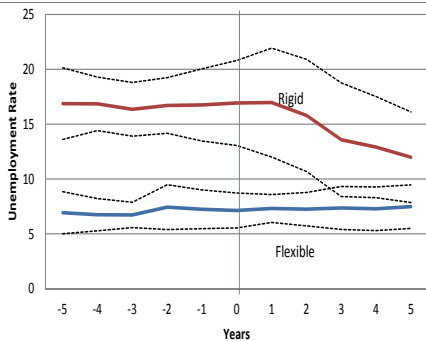
### FLEX LIBERALIZERS

	Avg Unemp	Year Lib.
CHL	7.5	2001
DNK	7.7	1988
CZE	6.5	2001
AUS	7.62	1985
ISR	7.5	1999
CYP	4.4	2004
SLV	7.08	2000
HUN	7.96	2001

## Not successful..



Capital Openness



Unemployment

- Many reasons why unemployment fell in the rigid (possibly additional reforms associated with K liberalization), still the fact that unemployment did not fall in flex is puzzling..

# The current account

- In the model fall in unemployment and capital inflows (increase in unemployment/capital outflows) go hand in hand
- Same exact evidence that hold for unemployment should hold for current account, i.e. rigid liberalizes should observe capital outflow, flex liberalizers capital inflow.
- Paper currently does not do that.. needed!!

## Final thoughts on capital flows and employment

- Heathcote and Perri (2015) consider a different channel through which capital openness affect employment
- Capital inflows can drive up price of non tradables (housing)
- On impact positive impact on employment, as more work is used to produce those goods (construction boom): Spain/Italy in Euro integration phase
- As capital inflow ends, high price of non tradables (appreciated real exchange rate) stay, and that increase production costs
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- As capital inflow ends, high price of non tradables (appreciated real exchange rate) stay, and that increase production costs
- If labor market not flexible enough (wages don't fall) tradable sector suffers, higher unemployment
- Degree of labor market flex is crucial for the desirability of capital inflows, but relation is more complex, and even capital inflows can be undesirable (through price effects)

# Italy v/s Germany unemployment differential

