The international spillovers of labor market reforms  
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Wolfgang Lechthaler, IfW Kiel

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Motivation

- The effects of labor market reforms and wage moderation continue to be a hotly debated topic
- The question is whether lowering ones wages can constitute a sort of 'Beggar-thy-neighbour’ policy
- The argument goes that by putting pressure on wages, a country can improve its competitive position at the cost of other countries
- Specifically, Germany was blamed for causing imbalances within the Euro-area that hurt other European countries and contributed to the Euro-crisis
- In a series of papers I have analyzed the international spillovers of labor market reforms and wage moderation (with Gabriel Felbermayr and Mario Larch)
Traditional View

- Traditional trade models are based on the notion of comparative advantage.
- Each country specializes in the production of goods which it can produce relatively better, e.g., a country with a lot of capital should produce capital-intensive goods.
- If a capital abundant country lowers its unemployment benefits, it becomes more competitive in the production of the labor-intensive good.
- That can lower unemployment in the reforming country and raise unemployment in the trading partner country.
- But, trade among industrialized countries is mainly intra-industry trade and not inter-industry trade.
Correlations of unemployment rates and tax wedges
Armington Trade

- As a first step we use an Armington model where each country produces a single intermediate good that’s part of a final consumption good
- Thus trade in the model is intra-industry trade
- Labor is the only factor of production
- The labor market is subject to search and matching frictions, i.e., unemployed workers and firms with a vacancy must search on the labor market
- The probability that search is successful is determined by the matching function
The labor market

- The higher the tightness on the labor market, i.e., the ratio between vacancies and unemployed workers, the higher is the chance of a worker to find a job.
- To decrease unemployment the number of vacancies must be increased, i.e., tightness must go up.
- It can be shown that

  \[ \theta_H = \left[ 1 + \left( \frac{\pi}{\tau} \right)^{\sigma-1} \right]^{\frac{1}{\mu(\sigma-1)}} \left( \frac{c_H}{m_H \Omega_H} \right)^{-1/\mu} \]

- Unemployment depends positively on the terms of trade and matching efficiency, and negatively on trade costs, unemployment benefits and bargaining power.
- The crucial question then is, how do labor markets reforms affect the terms of trade.
Wage moderation and the terms of trade
Lessons; and a more complicated model

- Thus using this simple model, wage moderation does not lead to an increase in unemployment in trading partner countries but rather a decrease.
- Wage moderation increases production and income in the reforming country and thereby the demand for all traded goods.
Lessons; and a more complicated model

- Thus using this simple model, wage moderation does not lead to an increase in unemployment in trading partner countries but rather a decrease.
- Wage moderation increases production and income in the reforming country and thereby the demand for all traded goods.
- Using a more elaborate model with firm heterogeneity and endogenous firm entry as in Melitz (2003) yields qualitatively similar results but quantitatively the effects are very small.
- Wage rigidity is very important for the magnitude of effects.
Wage moderation and unemployment in the Melitz model

Country 1, $\Delta u$

Country 2, $\Delta u$
Wage moderation and unemployment in the Melitz model - rigid wages

Country 1, $\Delta u$

Country 2, $\Delta u$

$s_1 = \frac{L_1}{L^w}$

$\tau_1$ (%)
Empirical strategy

• We use OECD data for 20 countries over the years 1975-2005 to estimate the following equation

\[ u_{it} = \lambda \cdot LMR_{it} + \lambda^* \cdot LMR^*_{i,t} + \pi \cdot PMR_{it} + \delta \cdot OPEN_{it} + \gamma_1 \cdot GAP_{it} + \gamma_2 \cdot GAP^*_{it} + F_i + T_t + S_{it} + \varepsilon_{it}, \]

• Our key variable of interest is \( LMR^* \) which measures foreign labor market variables

• Our measure for labor market distortions is the participation tax rate or tax wedge, the sum of the average tax burden and social benefits
## The tax wedge and unemployment in the OECD

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<td>(0.019)</td>
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<td>Foreign tax wedge</td>
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<td>(0.003)</td>
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<td>Openness</td>
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<td>(0.017)</td>
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<td>Adjusted $R^2$</td>
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Note: Robust standard errors in parentheses.
Conclusion

- Wage moderation does not necessarily hurt trading partners
- Both in a simple model of Armington trade and in a Melitz model lower labor market distortions lead to lower unemployment in all countries
- Lower labor market distortions raise income in the reforming country, which increases demand also in the trading partner country
- An empirical analysis for 20 OECD countries confirms this result
- The spillovers of larger and more central countries are larger
- Thus more open countries have an incentive to set higher unemployment benefits