

The Effects of Globalization on Wages, Employment, and the Wage Share in Austria

Project for the Chamber of Labor

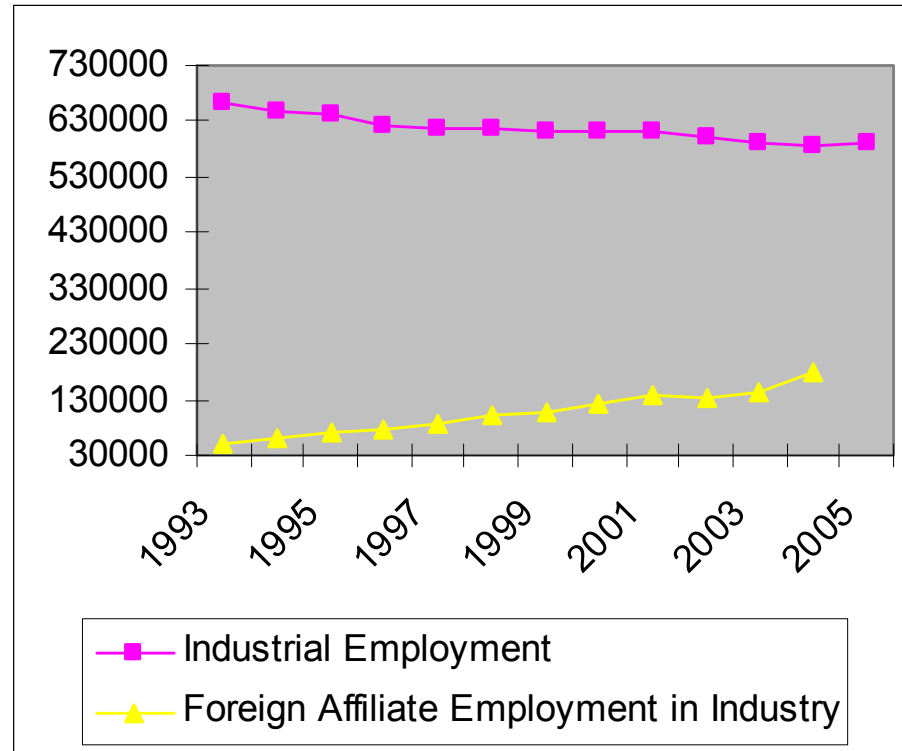
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Motivation

Austria: winner of globalization?

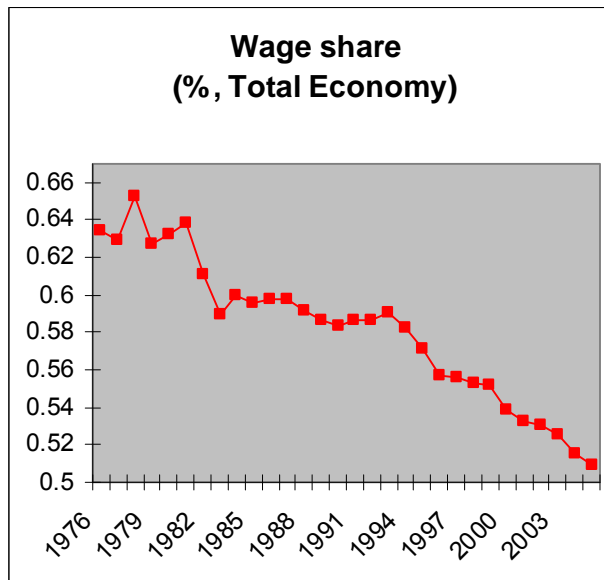
Domestic vs. Foreign Affiliate Employment in Industry



- Stagnant employment
 - declining in manufacturing
 - Rising in services
 - Increasing unemployment rate

Income distribution

- Stagnant wages
 - Wage moderation in manufacturing
 - % change in wages \ll productivity
 - Stagnation in services (decline in the last 5 years)



- A steep decline in the wage share
- continued despite profitability gains due enlargement

Structure of the presentation

- Hypotheses
- Literature
- Methodology
- Estimation results
- Conclusion and policy implications

Hypotheses

- Effects of
 - Imports
 - Outward Foreign Direct Investment
- Negative?
 - Substitute? – negative demand effect
 - Productivity effects – labor saving technical change
 - Political economy: threat effect – bargaining power
- Positive?
 - Complementary?
 - Scope
 - Scale effect
- Skill differentials
 - High vs. low skilled sectors
 - blue vs. white collar workers

Empirical literature: Effects of Trade

- trade leads to job and wage losses
 - particularly for less skilled labor,
 - But also high skilled workers or workers in high skilled sectors
 - Revenga, 92; Sachs & Shatz, 94; Greenaway, 99a; Landesmann et al., 01
 - inter-industry trade with low wage countries as well as intra-industry trade with developed countries
 - Greenaway et al (99) on UK
 - negative effects of both exports & imports on wages
 - stronger impact of the EU trade
 - OECD (05) :employment ↓ more rapidly in industries with the strongest growth in international competition in 11/15 countries
 - important differences in the estimated magnitudes
 - in US wages, in Europe employment adjusts

Controversy: Trade or technology

- e.g. Lawrence & Slaughter, 93 (trade theoreticians)
 - technological change as the main reason for the decline in the relative wage of the unskilled
 - observed changes in import prices and volumes not sufficient to explain large changes in relative wages
- Recent evidence : both trade and technology - the less skilled labor
 - Import penetration → defensive innovation
 - indirect effect of trade
 - e.g. Stehrer, 04; Greenaway et al., 99b
 - Rising importance of international outsourcing
 - e.g. Feenstra and Hanson, 1999

...Empirical literature

- OECD (2007): a higher share of imports from non-OECD countries → lower sectoral employment
 - offshoring has a negative effect for all skill groups,
 - larger for low skilled workers
 - services: demand shifts from high to low skill
- IMF (2007): labor share, country panel, aggregate
 - Offshoring :negative, only in the skilled industries
 - imported intermediate inputs/total intermediate inputs
 - changes in export (negative) & import prices (positive)
 - Capital intensive country
 - Immigration: negative, > trade & offshoring
 - technological change: higher effect on the unskilled
 - labor market policies
 - in small European countries:
 - the effects of offshoring & trade prices are much larger
 - the contribution of immigration is the smallest, < offshoring
 - the effect of globalization ≈ technology

Empirical literature: FDI

- US
 - Negative Blomström et al. (97), Brainard and Riker (97)
 - substitution greater between different countries Brainard&Riker
 - Positive: Desai et al (05), Hanson et al (03), Molnar et al (07)
 - Lipsey 02 : + in the machinery but - in the transport equipment
- Sweden
 - positive, Blomström et al. (1997)
 - Negative, Becker et al (05)
 - FDI in the CEE: - for mostly low wage EU Braconier&Ekholm01
- Germany,
 - no effect Molnar et al (07)
 - negative Becker et al (05) (higher wrt EU15)
- 11 OECD economies Molnar et al (07)
 - Negative in industries with strong linkages to the non-OECD
 - Positive in services
- EU15: Negative, Konings and Murphy (03)
 - but no effect wrt to the low wage regions in the EU & the CEECs.
- France and Belgium: negative, EC (05)
- Japan
 - Positive, Lipsey et al (00)
 - negative, Molnar et al (07)

Estimation Methodology

- Panel data of industry & total economy: 1990s-2005
 - Stat AU, WIFO, OENB, Social Insurance
- Employment
- Real wage (deflated by PPI)
- Wage share = $(\text{Wage} * \text{Employment}) / \text{Value added}$
 - Joint effects on both employment and wages

Measuring globalization effects

- Imports (/ domestic consumption)
 - Intermediate (offshoring) vs. Final goods
 - Industrial countries
 - Eastern Europe
 - 20 countries: 10 Eastern European new member states, South Eastern Europe (Croatia, Albania, Bosnia-Herzegovina, Serbia-Montenegro, Macedonia), and Turkey), four European countries of the Community of Independent States (Russia, Ukraine, White Russia, Moldavia)
 - Other lower wage
- Trade volume
 - export/output + imports/domestic consumption
- Outward FDI effects
 - Affiliate Employment
 - Industrial countries
 - Eastern Europe

Effects on employment: FDI

- Jobs lost during 1996-2005 due to the additional foreign affiliate jobs created
 - In total economy
 - 155.488 in nine years
 - 0.584 jobs lost per job created in the East
 - 6.0% decline
 - in total industry
 - 43.402 (per 82406 jobs created in the East (+190%))
 - 0.53 jobs lost per job created in the East
 - 7.0% decline
 - in services
 - Negative effects of the jobs created in the West

... Effects on employment: Trade

- Negative total import impact
 - particularly due to offshoring to the East
 - High skilled manufacturing sectors more effected (blue collar workers)
- Jobs lost during 1990-2005 due to imports
 - in manufacturing
 - Net job loss due to total imports: 12.495 (-1.8%)
 - 146.115 due to offshoring to East (-20.9%)
 - Intermediate imports from the West: positive effects
 - More blue collar jobs
 - in total economy (tradable sectors)
 - 66.343 due to offshoring to East (-7.2%)
 - 50.948 due to offshoring to West (-5.5%)
 - Net job loss due to total imports: 53.262 (-5.6%)
- imports from ROW: positive - complementary
- Total trade: positive impact (1990-2005)
 - only regarding trade with the rest of the world
 - 6.5% in total economy; 10.8% in manufacturing

Effects on wages: FDI

- Negative wage effects in industry (1996-2005)
-25.2% due to FDI in both the East & West
- no effect in the total economy

Effects on wages: Trade

- Negative but relatively low total import impact 1990-2005
 - manufacturing: -3.4%
 - Only in high skilled sectors (+scope effect in low skilled sectors)
 - Total economy: -4.2%
- Negative impact of offshoring to the West
 - in both the total economy and manufacturing
 - negative in manufacturing despite positive employment effects
 - more blue collar lower paid jobs than white collar jobs
- Positive impact of offshoring to the East
 - substitution of blue collar workers & skill upgrading (scope)
- Imports from the ROW: positive, complementary (scale & scope)
- Total trade: positive impact (1990-2005)
 - in manufacturing all countries (17.1%)
 - in the total economy negative effect of trade with the West

Effects on the wage share

- Negative FDI effect (1996-2005)
 - industry : Due to FDI in both country groups
 - -17.9 %-points
 - total economy: only due to FDI in the East
 - -1.82 %-points
- Negative total import impact (1990-2005)
 - total economy: due to offshoring to the East & West
 - -11.1 %-points
 - manufacturing: due to offshoring to the East
 - -13.1 %-points

Conclusion

- Negative effects of imports & FDI
 - on employment, wages & wage share
 - not limited to workers in low skilled sectors
 - mostly effecting blue collar workers
- Although total trade effects are positive, they do not seem to be sufficient enough to compensate the FDI effects
 - Summing up total trade+FDI:
 - -9.650 jobs/year in total economy

Policy implications

- Is it too early to decide?
 - Will scope & scale effects be realized with a lag?
- An excuse to postpone sharing the fruits with labor
- Labor market outcomes have persistence
 - long term unemployment problems
 - secular decline in labor's bargaining power
- Not a destiny: changing the rules of the game
- East-West labor cooperation in the EU
 - Not necessarily positive effects on the host country labor
 - Wage coordination (productivity-led) & common action
 - EU wide policy for regional development – reconsidering the EU budget

Table 4. Cumulative % change effects (1996-2005)		
a. Employment: Cumulative % change during 1996-2005 due to:		
	Industry	Total economy
Real wage	0.00	0.00
Real value added	18.90	11.59
Non-ICT Capital	0.69	0.00
ICT Capital	-20.97	0.00
Foreign affiliate employment-developed countries	0.00	0.00
Foreign affiliate employment-east	-6.96	-5.97
Foreign employment total cumulative %change effect	-6.96	-5.97
Memo item: Actual cumulative % change in employment	-4.89	7.32
b. Wage: Cumulative % change during 1996-2005 due to:		
	Industry	Total economy
Employment	3.35	-3.31
Non-ICT Capital	0.93	0.00
ICT Capital	0.00	0.00
Foreign affiliate employment-developed countries	-7.23	0.00
Foreign affiliate employment-east	-17.93	0.00
Foreign employment total cumulative %change effect	-25.17	0.00
Memo item: Actual cumulative % change in wages	12.86	3.91
c. Wage share: Cumulative %-point change during 1996-2005 due to:		
	Industry	Total economy
Non-ICT Capital t-1	0.75	0.00
ICT Capital t	-4.32	0.00
Foreign affiliate employment-developed countries	-4.74	0.00
Foreign affiliate employment-east	-13.18	-1.82
Foreign employment total cumulative %change effect	-17.92	-1.82
Memo item: Actual cumulative %-point change in wage share	-8.24	-4.80

IMPORT EFFECTS

a. Employment: Cumulative % change due to:	Manufacturing			Total Economy	
	Low	High	Total	Total	High
Intermediate imports from industrial countries	-5.62	15.72	8.44	-5.51	3.39
Final imports from industrial countries	0.00	0.00	0.00	0.00	0.00
Intermediate imports from East	16.89	-57.18	-20.86	-7.17	-18.60
Final imports from East	-15.25	0.00	0.00	0.00	0.00
Intermediate imports from rest of the world	7.63	0.00	5.28	0.77	0.00
Final imports from rest of the world	0.00	0.00	5.36	6.16	0.25
total cumulative %change effect	3.65	-41.46	-1.78	-5.76	-14.96
Memo item: Actual cumulative % change in employment	-27.72	-6.77	-16.49	-4.12	9.23
b. Wage: Cumulative % change due to:	Manufacturing			Total Economy	
	Low	High	Total	Total	High
Intermediate imports from industrial countries	0.00	-3.40	-6.21	-7.21	-11.59
Final imports from industrial countries	9.13	0.22	0.00	0.00	0.00
Intermediate imports from East	2.05	2.50	1.75	3.04	0.00
Final imports from East	0.00	-4.12	0.00	0.00	-11.07
Intermediate imports from rest of the world	-4.07	0.00	0.00	0.00	0.00
Final imports from rest of the world	9.73	0.32	1.05	0.00	0.14
total cumulative %change effect	16.84	-4.48	-3.41	-4.17	-22.51
Memo item: Actual cumulative % change in wages	28.75	40.16	37.97	32.62	30.70
c. Wage share: Cumulative %-point change due to:	Manufacturing			Total Economy	
	Low	High	Total	Total	High
Intermediate imports from industrial countries	-3.87	8.42	1.53	-8.43	-5.39
Final imports from industrial countries	6.29	0.15	0.00	0.00	0.00
Intermediate imports from East	13.04	-37.35	-13.10	-2.74	-12.23
Final imports from East	-10.50	-2.82	0.00	0.00	-7.28
Intermediate imports from rest of the world	2.45	0.00	3.62	0.51	0.00
Final imports from rest of the world	6.70	0.22	4.40	4.08	0.26
total cumulative %-point change effect	14.11	-31.38	-3.56	-6.58	-24.64
Memo item: Actual cumulative %-point change in wage share	-12.01	-9.93	-10.70	-11.37	-11.11