

200 YEARS
since 1816



OESTERREICHISCHE NATIONALBANK
EUROSYSTEM

Offshoring and labor markets

Vienna University of Economics and Business
30 November 2016

Julia Wörz
Head of Unit
Foreign Research Division
Oesterreichische Nationalbank

Opinions expressed here do not necessarily reflect the official viewpoint of the Oesterreichische Nationalbank or of the Eurosystem.

www.oenb.at

Outline

- **Offshoring: driving factors & stylized facts**
- **Theory**
- **Empirics**
- **Policy**
- **Conclusions**

Offshoring

= relocation of productions stages abroad

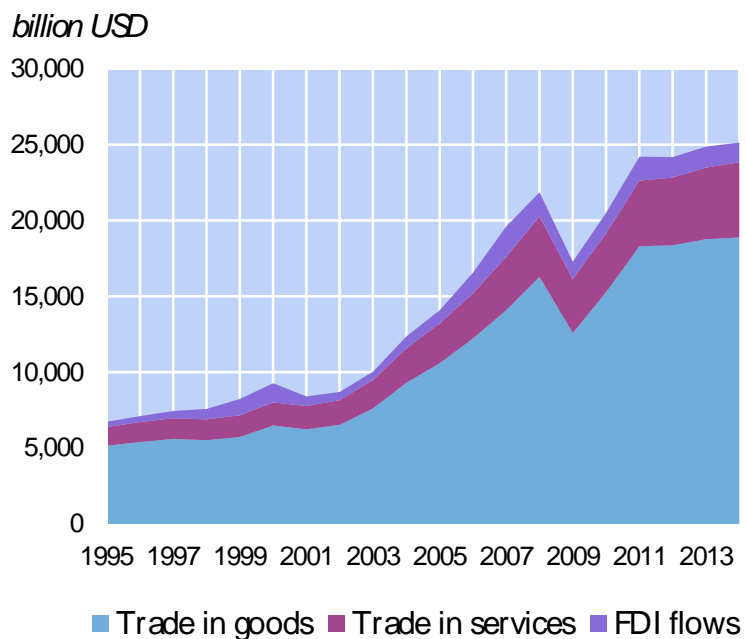
Driven by:

→ Seminal decline in trade costs

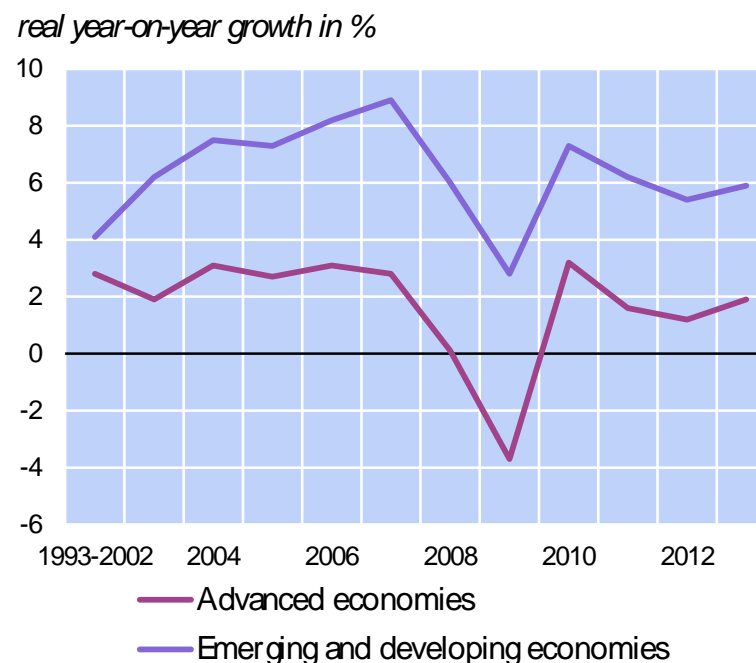
→ ICT revolution

→ Integration of EMEs in global economy

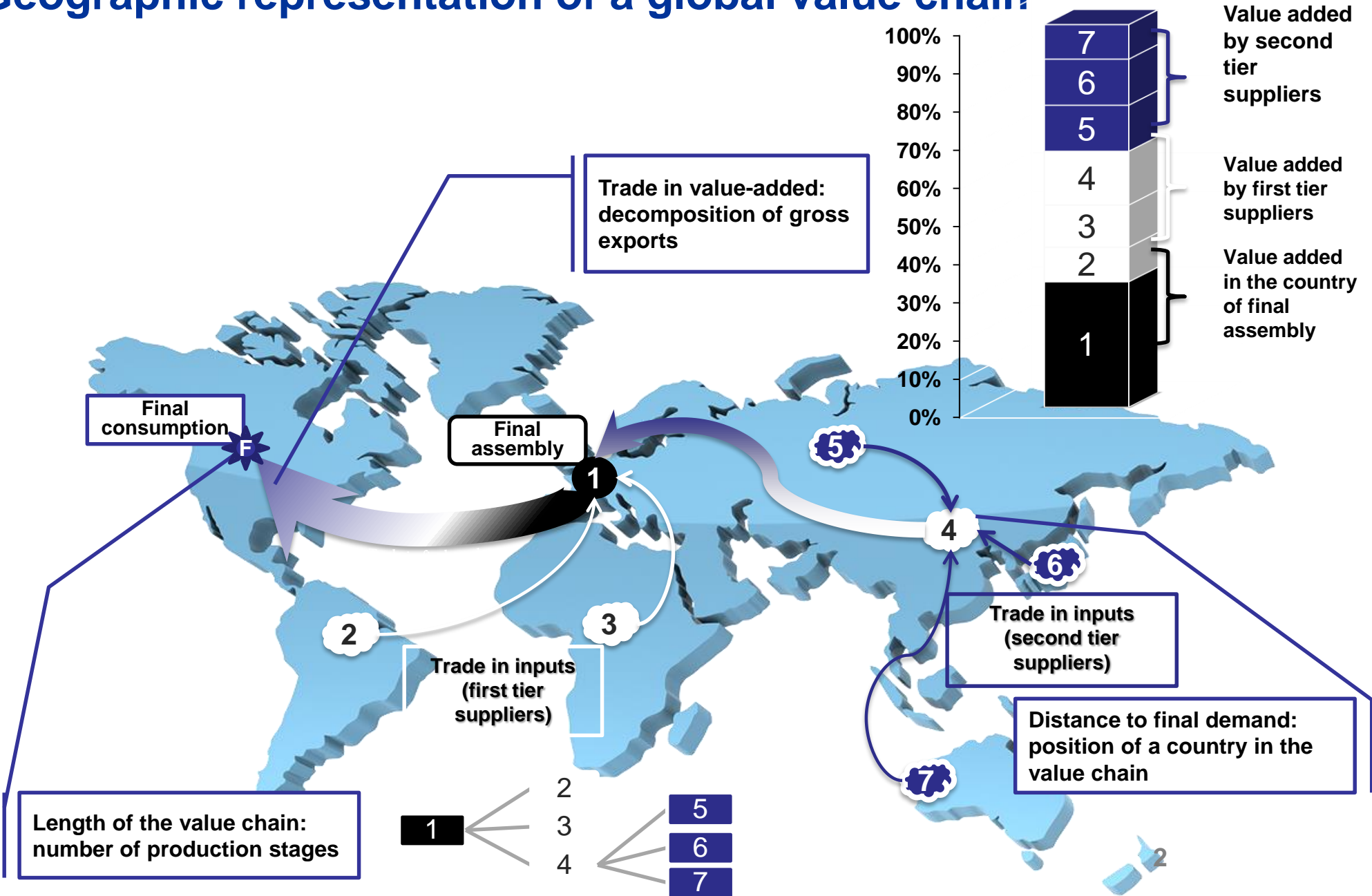
International trade and FDI, 1995-2014



Trade growth by regions, 1993-2013



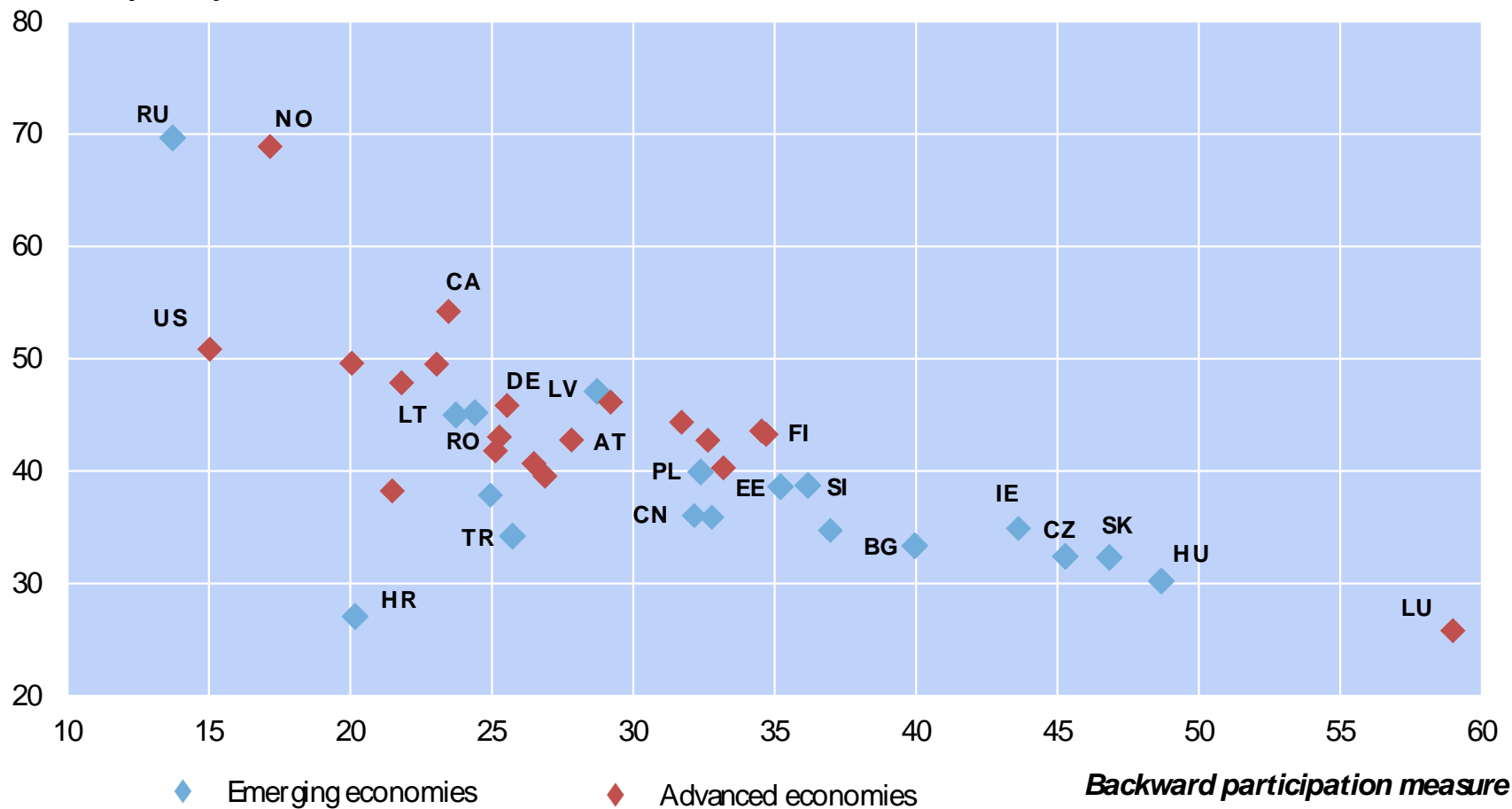
Geographic representation of a global value chain



Position within GVC influences labour market effects

Index for participation in global value chains, 2011

Forward participation measure



Source: TIVA-OECD.

What does classical trade theory tell us?

- **Free trade increases overall welfare** (strong and well established result) **and creates winners and losers** (more attention recently).
- **Factor price equalization theorem:** As goods prices reach new global equilibrium, factor prices adjust internationally.
- **Stolper-Samuelson theorem:** If the relative price of a good increases, then the factor used more intensively in its production gains relatively. Trade liberalization thus makes the locally scarce factor lose in relative terms = capital in developing and labor in developed countries.
- Strong enlargement of the global pool of labor via **EME's trade integration** lowers the capital-labour ratio, hence **wages decline relative to profits** and the **capital share in global income rises**.

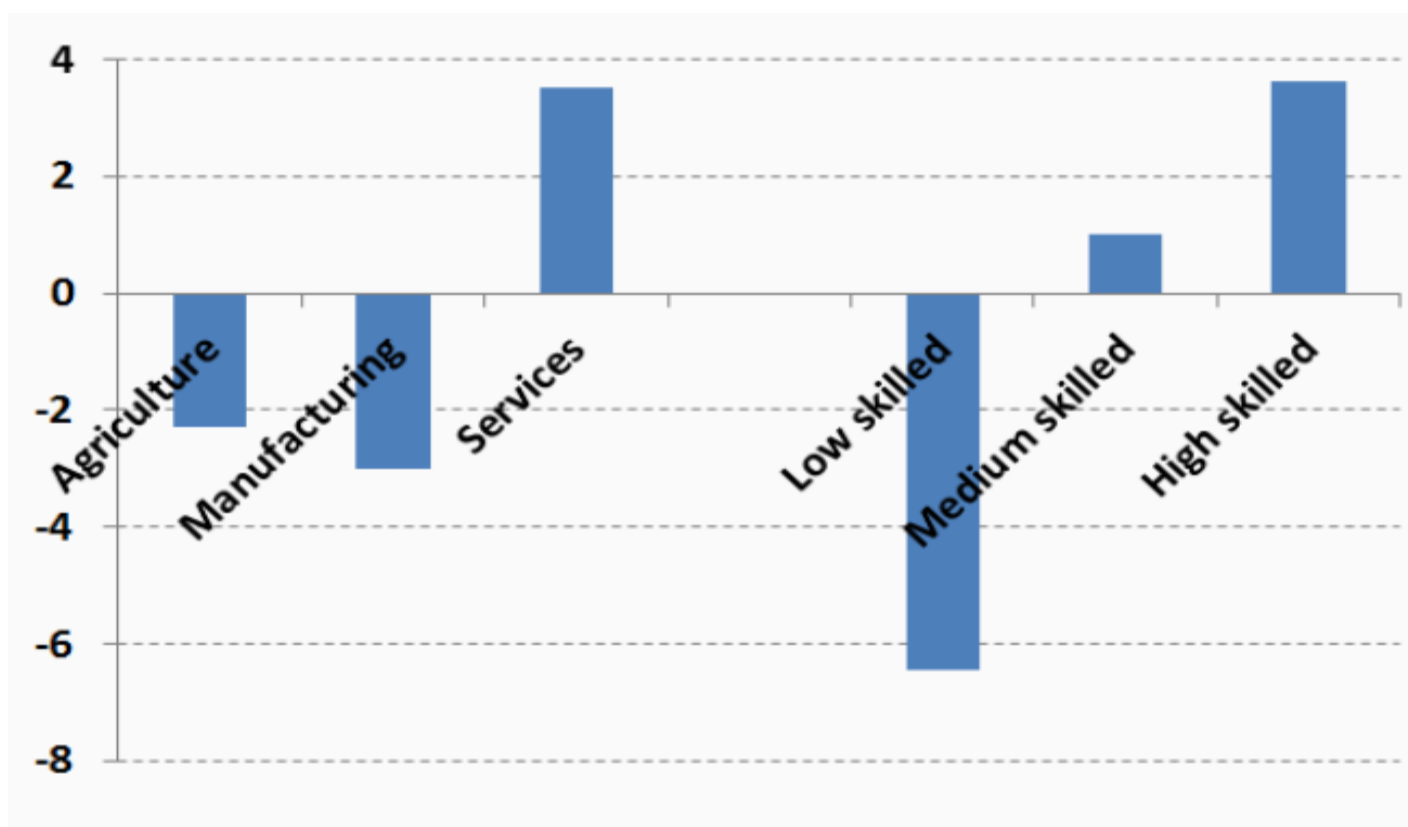
Effects of offshoring on manufacturing employment

	Industry Group		
	tech intensive	labour intensive	resource
imports of business services	0.1398 ***	-0.1423	0.014
imports of communication	0.0233	0.1357	0.0324
imports of financial services	0.0064	0.1522	-0.0371
imports of insurance services	-0.0804	-0.2313 **	-0.0177
value added productivity	0.0795	-0.1718	-0.0152
total FDI inflows	-0.0042	-0.0319	-0.0011
barriers to entrepreneurship	0.0342	-0.0565	0.0094
state control	-0.04 *	0.1121	0.0264
barriers to trade and investment	0.0192	0.0689	-0.0075
constant	-3.3584 ***	-2.6738 ***	-3.266 ***

Source: Francois and Wörz. 2008. "Producer Services, Manufacturing and Trade", *Journal of Industry, Competition and Trade* (8), pp. 199-229.

Is Europe loosing jobs in manufacturing?

Change in number of workers in the EU27 involved in manufactures GVCs between 1995 and 2008 (in millions)



Source: Timmer, M., Los, B., Stehrer, R., and de Vries, G. "Rethinking competitiveness: The global value chain revolution", VoxEU blog, 26 June 2013. Available:

<http://www.voxeu.org/article/rethinking-competitiveness-global-value-chain-revolution>

Did we see a downward pressure on wages from EU Eastern enlargement?

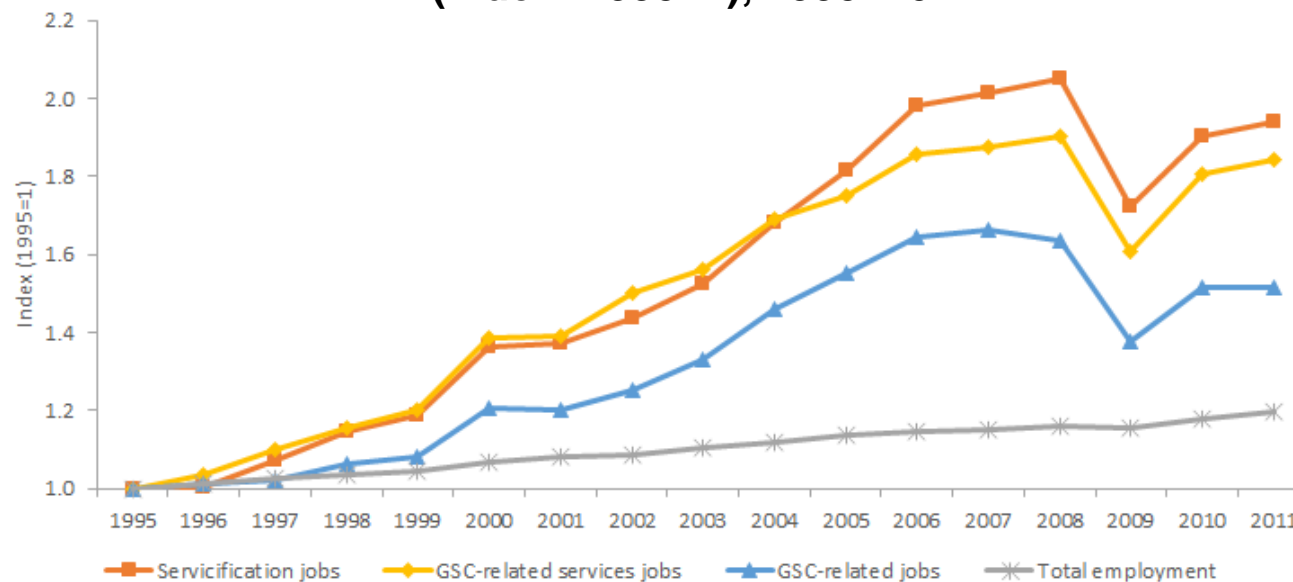
- Polgar and Wörz (2010) find that more industries in the EU showed a positive direct impact from trade on wages than a negative one between 1995-2007.
- Clearly, industries with fast export growth reacted more strongly to trade.
- In the acceding EU-10 countries, trade more often promoted the realignment of wages with productivity developments, while in the incumbent EU-15 countries foreign wages influence wages more strongly.

Source: Polgar and Wörz. 2010. "No risk and some fun? Trade and wages in the enlarged European Union", Empirica (37/2), pp. 127-163.

ILO estimates of GVC-related job growth

- GVC jobs grow faster than overall employment, especially “servicification jobs” (= GVC-related service jobs depending on manufacturing demand)

**Servicification jobs in comparison with other types of jobs
(Index: 1995=1), 1995–2011**



Source: Kizu, Kühn and Viegelahn. 2016. “Linking jobs in global supply chains to demand”, ILO Research Paper No. 16, August 2016, International Labour Office.

More results from recent ILO study

- Sector's GVC participation shows positive impact on labour productivity (especially when final demand comes from advanced economies), but not on wages.
- GVC participation leads to a decline in the wage share in total income.
- EU sustains majority of GVC-related jobs in the sample.
- Most GVC-jobs are located in EMEs and depend on demand from AEs.
- Demand from AEs for GVC-jobs declining, while demand from EMEs is increasing.

Source: Kizu, Kühn and Viegelahn. 2016. "Linking jobs in global supply chains to demand", ILO Research Paper No. 16, August 2016, International Labour Office.

Conclusions

- Offshoring **affects employment**, offshored jobs unlikely to return home.
- Offshoring **affects wages** (not necessarily negatively, positive productivity effects).
- Offshoring **diminishes the wage share** in total income.
- As long as **losers are not compensated** well, offshoring undermines the support for free trade despite **positive overall welfare effects**.
- **Technological progress / digitalization** poses an equally strong challenge to the labor market.
- Many **vocal white-collar professionals will soon be among the losers**, they were not used to foreign competition so far.

Possible policy responses

- **Improving the safety net** (pension portability, wage-loss insurance, ...)
- **Preparing the workforce for the future** (not necessarily more, but better and more adequate education/training, non-routine jobs, vocational education)
- **Climbing the comparative advantage ladder** (constant innovation)
- **Redistributing the gains from trade / offshoring more equally** (i.e. through higher taxes on profits)