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Growth Welfare Innovation Productivity

Structural change, global value chains and the evolution of the international economy

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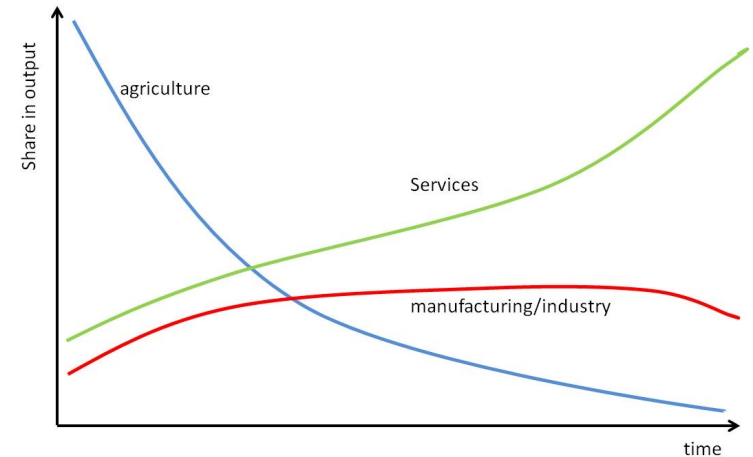


The next 10 to 15 minutes

- Structural change towards services
- Structural change and global value chains
 - Financial and real globalization
 - European dimension
- Efficiency vs. resilience: challenges and research needs

Structural change

- Reallocation of activities/output in the process of economic development
- Supply (productivity, technology) and demand (price elasticities) shape structural change.
- Structural changes is uneven not only within countries but also between countries
- Structural shifts affect growth potentials and induce economic adjustment processes



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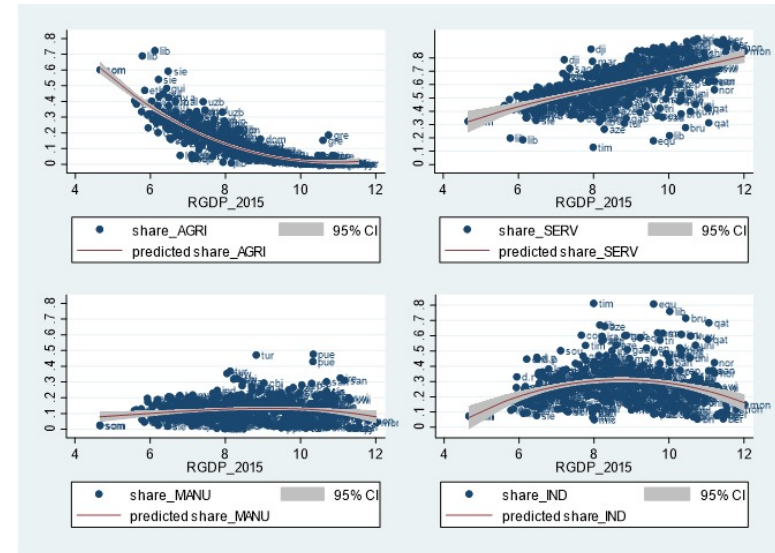
Growth Welfare
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Structural change towards services

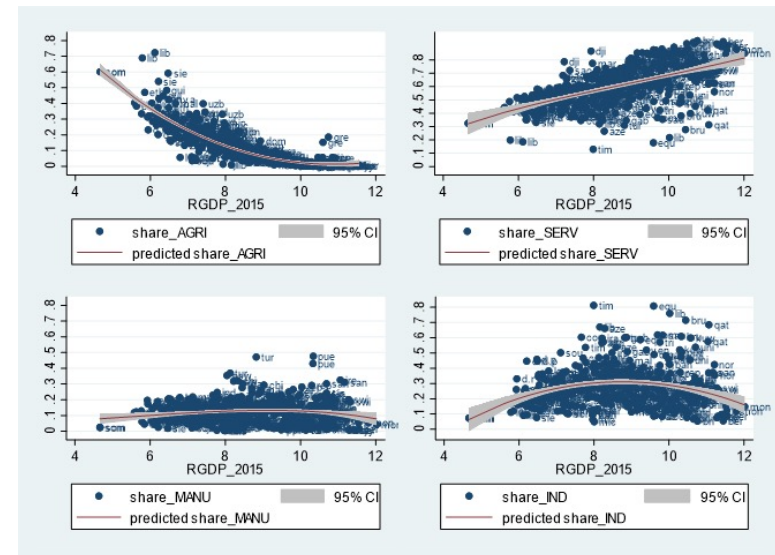
- Increase of the service-share is the mostly driven by demand (business and non-market services)
- Shift is stronger in terms of employment shares than in value added shares
- growth potential tends to decrease
- “Intermediate shift” towards manufacturing becomes more difficult
- Climbing the ladder of economic development becomes more difficult
- Heterogeneity: Quality of specialization matters!



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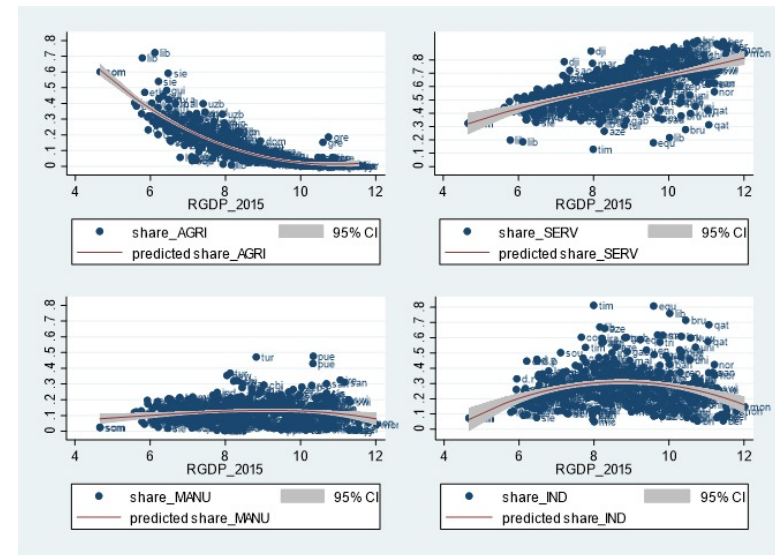
Structural change towards services

- Heterogeneity: Quality of specialization matters!
- Business services have also technology component and are complementary to “tech” manufacturing (Hölzl 2021)
- Differences between high- and medium-tech manufacturing
- Importance of Keynesian and Schumpeterian efficiency (Dosi et al. 2022)
- Importance of products that replace other products (Reinstaller and Reschenhofer 2021)
- Tradeables and non-tradeables (construction)



Structural change towards services

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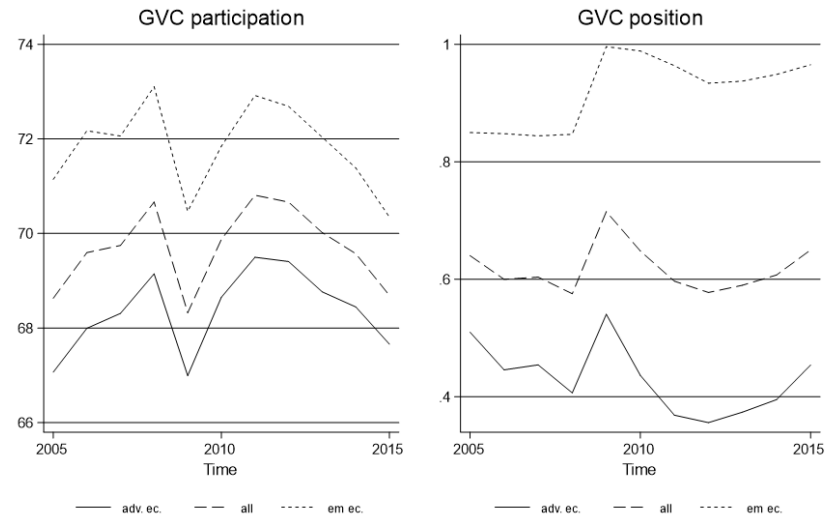
„Diversify into activities which offer the greatest opportunities of learning and demand growth (irrespective of current comparative advantage)“ (Dosi et al 2022)

Digression: Servitisation of manufacturing

- Servitization: increased provision of services by manufacturing firms
- Stagnation of servitization shares in the period 2000-2014, but increased provision of high-tech services
- High differences across industries and countries
- Servitization per se does not contribute to growth
- Fit with the economic model (service vs. manufacturing catch-up)

Global value chains

- Fragmentation of the international division of labour
- Specialization in tasks - not in products
- Forward integration - IV (VA intermediates in exports of importing countries)
- backward integration - FV (foreign VA i. . domestic imports)
- Financial crisis affected GVC participation but more backward integration than forward integration.



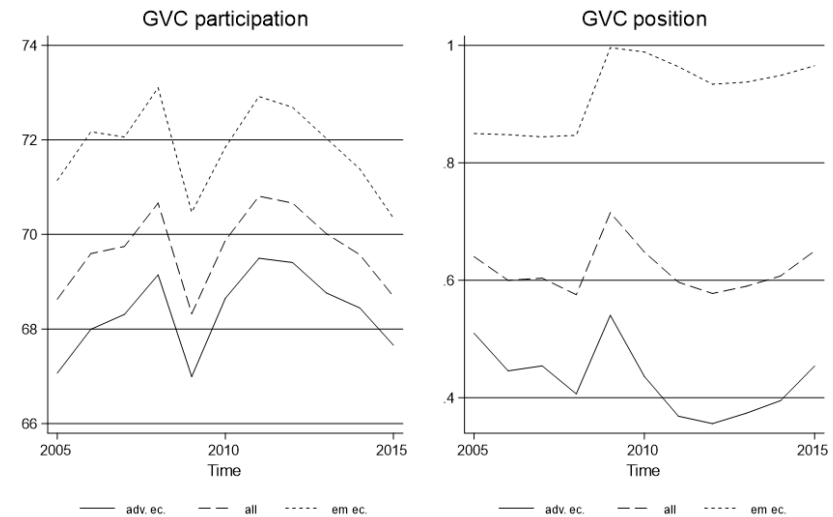
$$GVC\ Participation_{i,t} = \frac{FV_{it} + IV_{it}}{EX_{i,t}}$$

$$GVC\ Position_{i,t} = \ln\left(1 + \frac{IV_{it}}{EX_{i,t}}\right) - \ln\left(1 + \frac{FV_{i,t}}{EX_{i,t}}\right)$$

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Global value chains and structural change

- GVC participation is associated with a higher growth potential (especially in emerging and developing countries)
- Forward integration shows a weak association with the growth of RD intensity (again for emerging and developing countries)
- No direct effect of GVC on the size of the manufacturing share (except in advanced countries)
- But higher GVC participation is associated with a lower share of mortgage credit in total credit (investment opportunities)

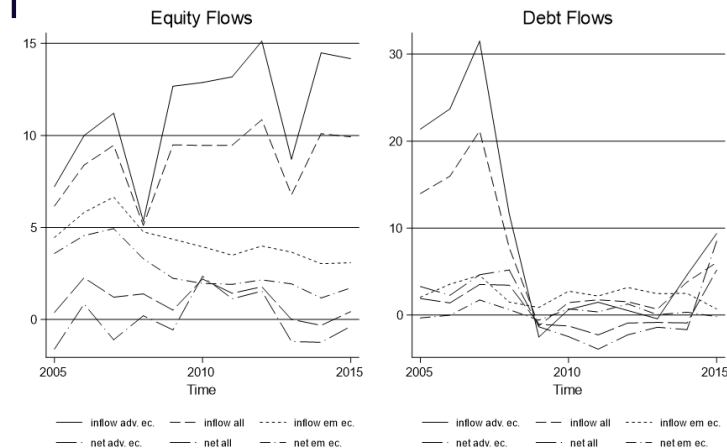


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Real and financial globalisation

- The financial crisis affected primarily gross debt flows but not equity capital flows (in advanced countries)
- Positive association of GVC participation and GVC position with equity flows
- Forward integration promotes equity capital flows (driven by advanced economies)
- But: financial and value chain/trade globalization are largely distinct phenomena, holds for debt but also equity flows



Integration in RVCs: the European dimension

- Value chains Integration is especially relevant for regional trade blocs such as the EU (regional VCs)
- Integration into regional (EU) and global value (extra-EU) chains
- Overall integration into European RVCs had a positive impact on productivity
- But: Forward integration into the EU has a negative and significant impact on labour productivity, while backward integration into the EU (sourcing) shows a positive and significant impact
 - Manufacturing core, workbench (Eastern Europe) and Southern Europe
- More productive industries with more complex products show lower integration into the EU RVC but higher GVC-integration
- Conjecture: Institutions of the Single Market may also give rise to specific, potentially unwanted specialization outcomes

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... and institutions?

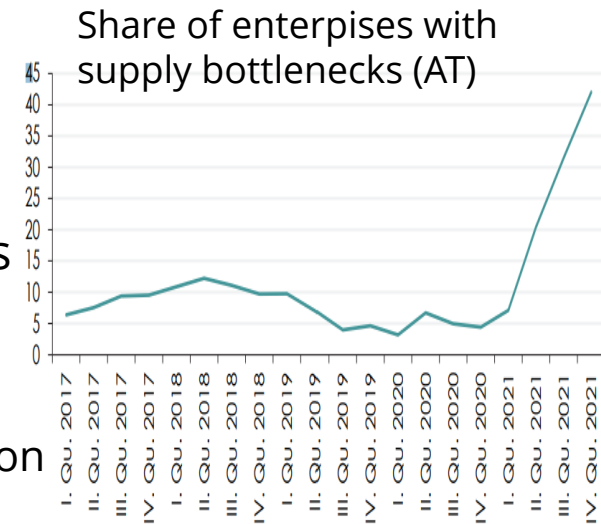
- Institutions matter for structural change and value chains
- Close association between quality of institutions and ability to export complex products
- Close association between quality of institutions and R&D capabilities at the country level (coevolution of capabilities and institutions)
- Results also suggest positive effect of EU-accession on economic performance beyond effects of trade integration (institutional upgrading)

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Efficiency vs. resilience

- COVID-19-supply bottlenecks & the discussion about gas-dependency show that an efficiency perspective may not be enough
- Resilience of value chains emerges because of
 - Climate change
 - Critical raw materials/products (geopolitical aspects)
 - Screening for substitutes/diversification
- Higher resilience is likely associated with higher costs
- Potential to reshuffle (some of the) cards
 - Regionalisation of value chains, Reshoring, Diversification
 - Global Shocks (e.g. food crisis similar as in 2008)
- A reshaping of value chains creates risks and opportunities for structural change



Thank you
for your attention