Industry 4.0: challenges for productivity, employment and inclusion

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Session 2: Impact on employment, skills and inequality

Industry 4.0: impact on industrialization as a development strategy

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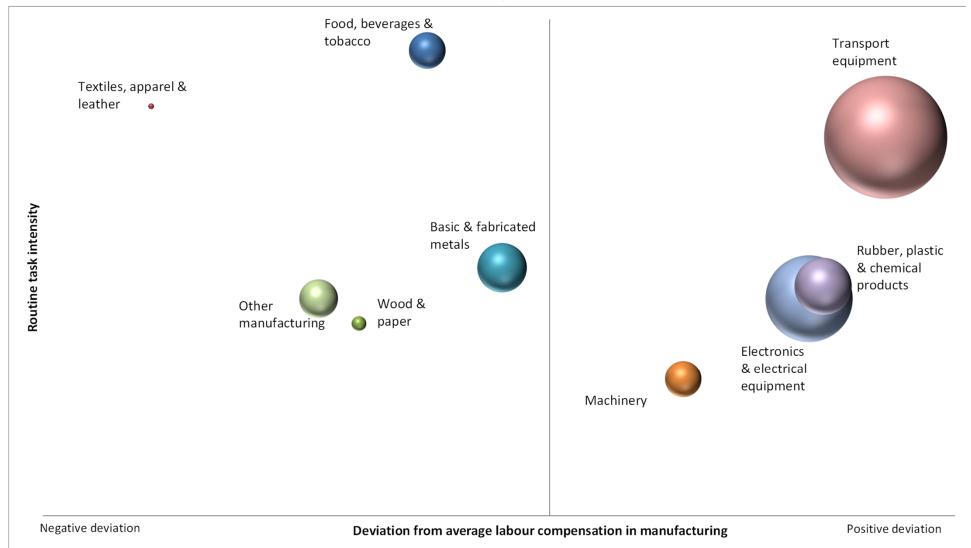
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Main differences between techno optimists and techno pessimists

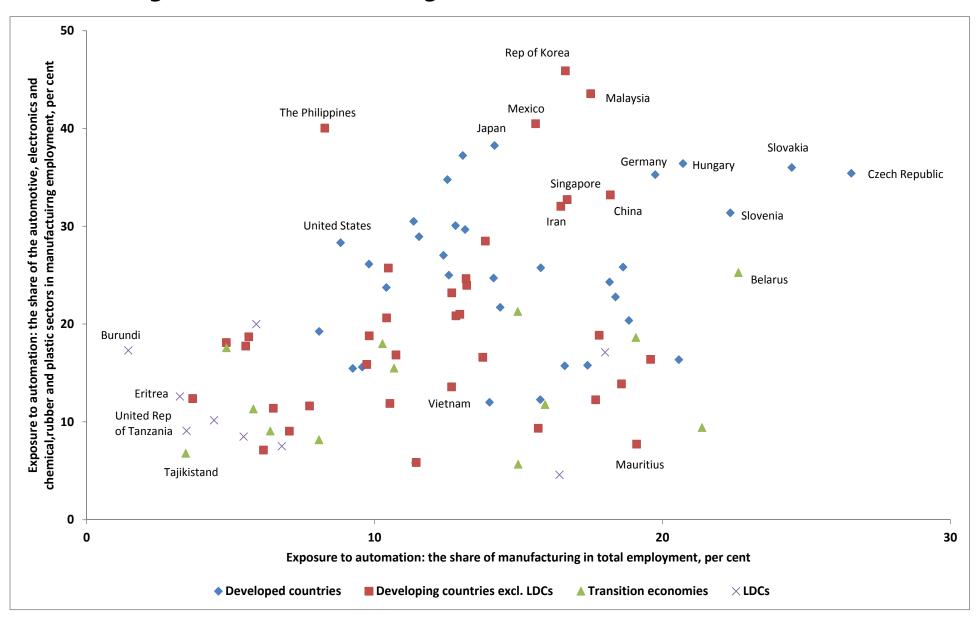
- Techno pessimists argue that robots compete against all workers in all jobs - move towards world without work
- Techno optimists argue that robots compete
 - Only for tasks, not for jobs
 - Only for some tasks, i.e. routine tasks that can be codified
 - Only in some sectors, while other sectors continue to produce with traditional capital and labour – routine tasks mainly in manufacturing
 - Only against unskilled labour, while they complement skilled labour, so that skills development is the standard policy solution (technology-education race)
 - Only temporary problem, but net overall job creation in the long run
- Even "optimistic" view implies at least temporary large-scale job displacement in manufacturing and reduced effectiveness of industrialization as development strategy: is this outcome likely and what policies in addition to bridging digital divides are needed?

Alarmist account of world without work overdone: what is technically feasible to automate through robots is not necessarily also economically profitable

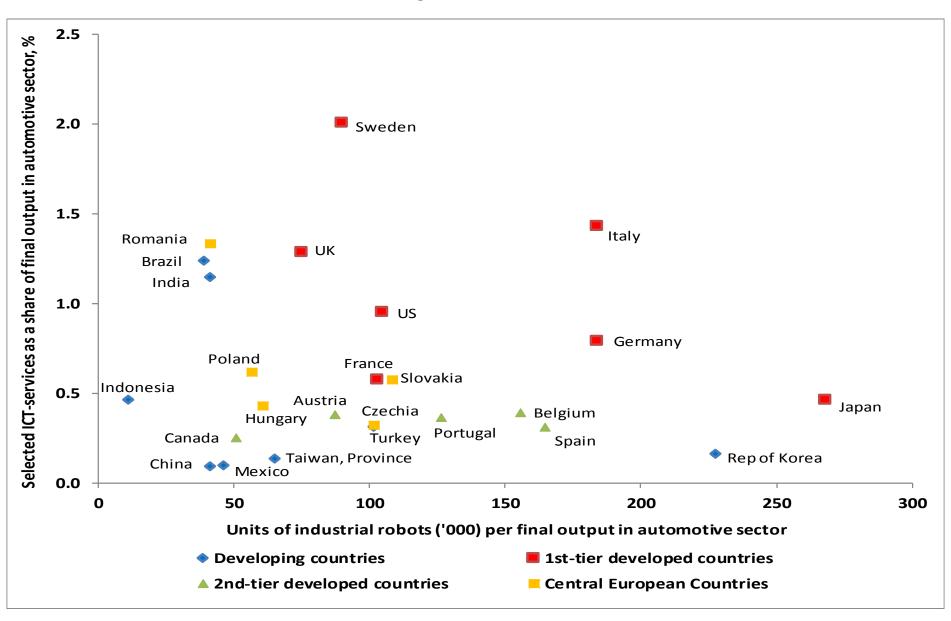
Size of bullets reflects global use of robots



As of now, most developing countries are not overly threatened by robot-based automation



Is labour-based production sustainable if complemented by use of ICT-services?



Thank you!

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