Trade in Tasks

Rainer Lanz, Sébastien Miroudot, Hildegunn Kyvik Nordås
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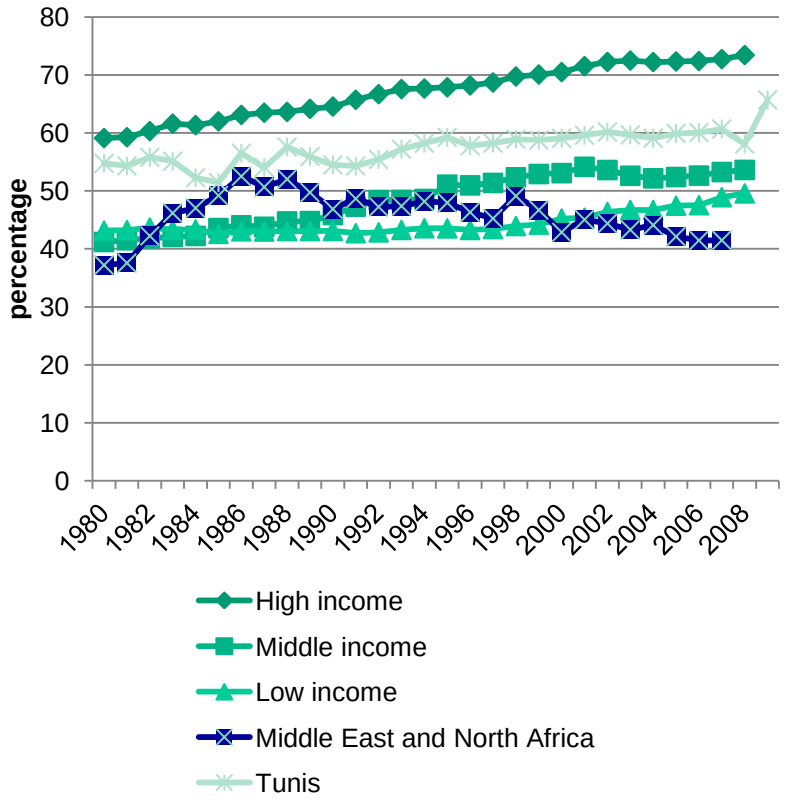
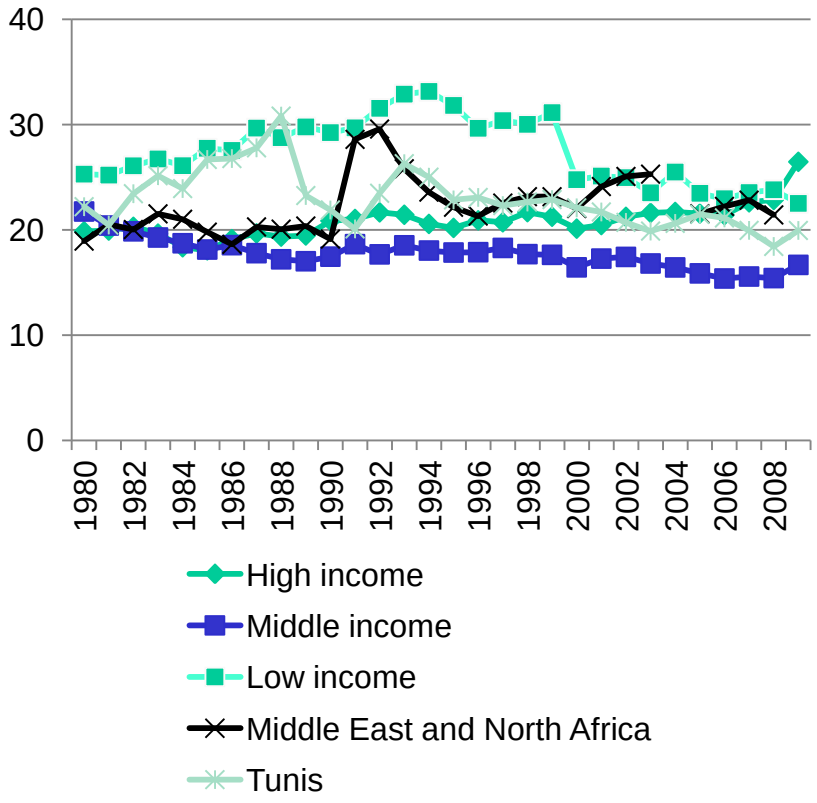
Background: importance of services

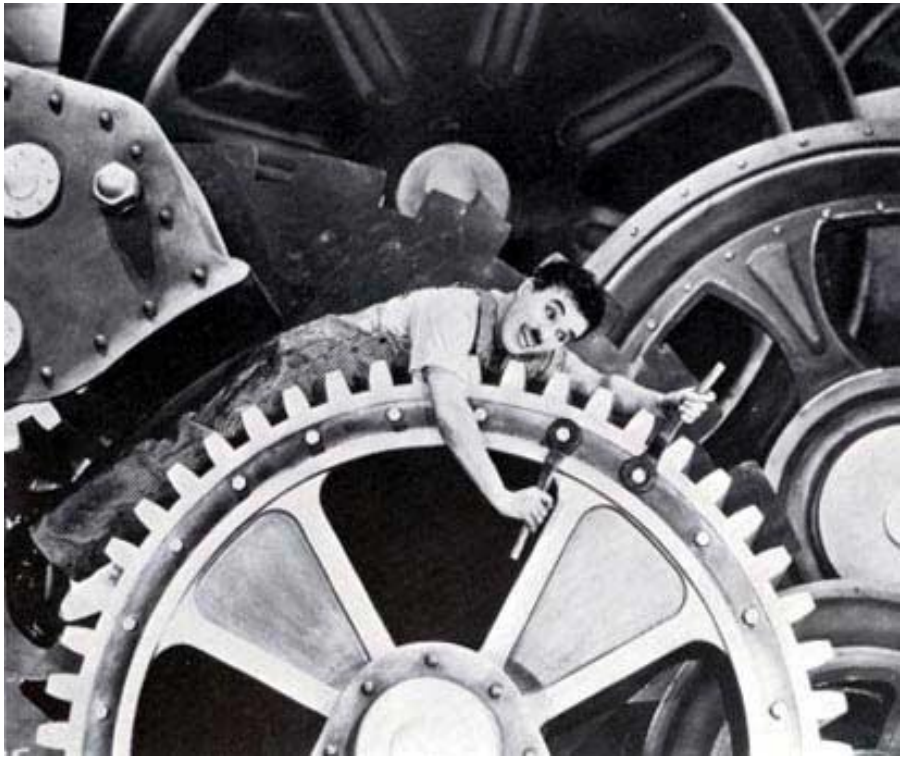
Services share of GDP



Services share of total trade



Trade in tasks – deepening division of labour



How can trade in tasks be measured?

Alternative 1: outsourcing of jobs

1. Map tasks by occupation
2. Identify the occupations where tradable tasks are the most important
3. Calculate the share in total employment of these occupations

Alternative 2: tasks embodied in traded goods and services

1. Map tasks by occupation
2. Map employment by occupation and sector
3. Yields task by sector
4. Map production by sector to goods and services produced
5. Yields traded tasks – does not distinguish embodied and disembodied tasks.

The task content of output

Intensity of task h in sector s

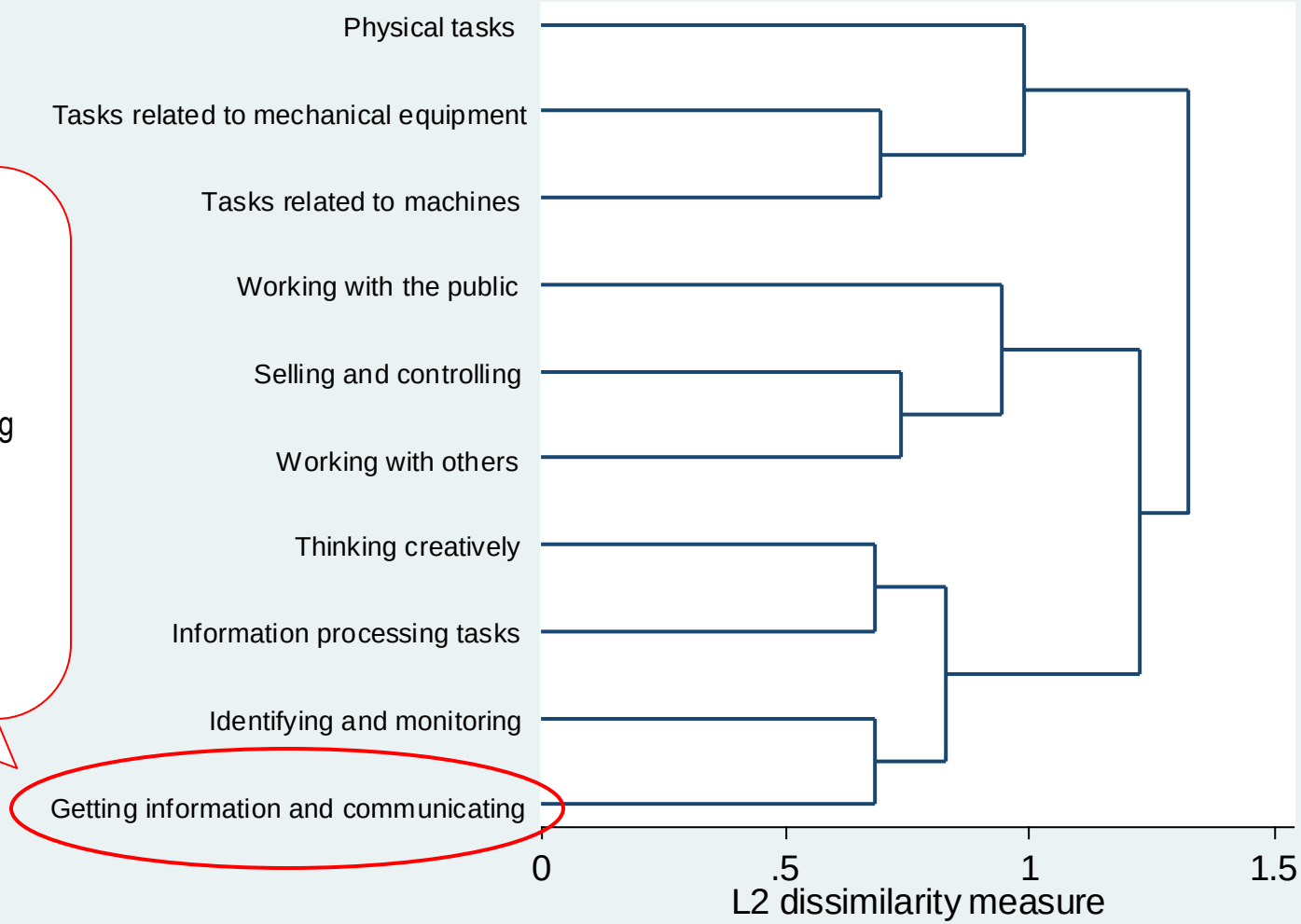
$$TI_{ths} = \begin{bmatrix} TC_{11} & TC_{1j} \\ TC_{h1} & TC_{hj} \end{bmatrix} x \begin{bmatrix} \lambda_{t11} & \lambda_{t1s} \\ \lambda_{tj1} & \lambda_{tjs} \end{bmatrix}$$

Content of task h in total output

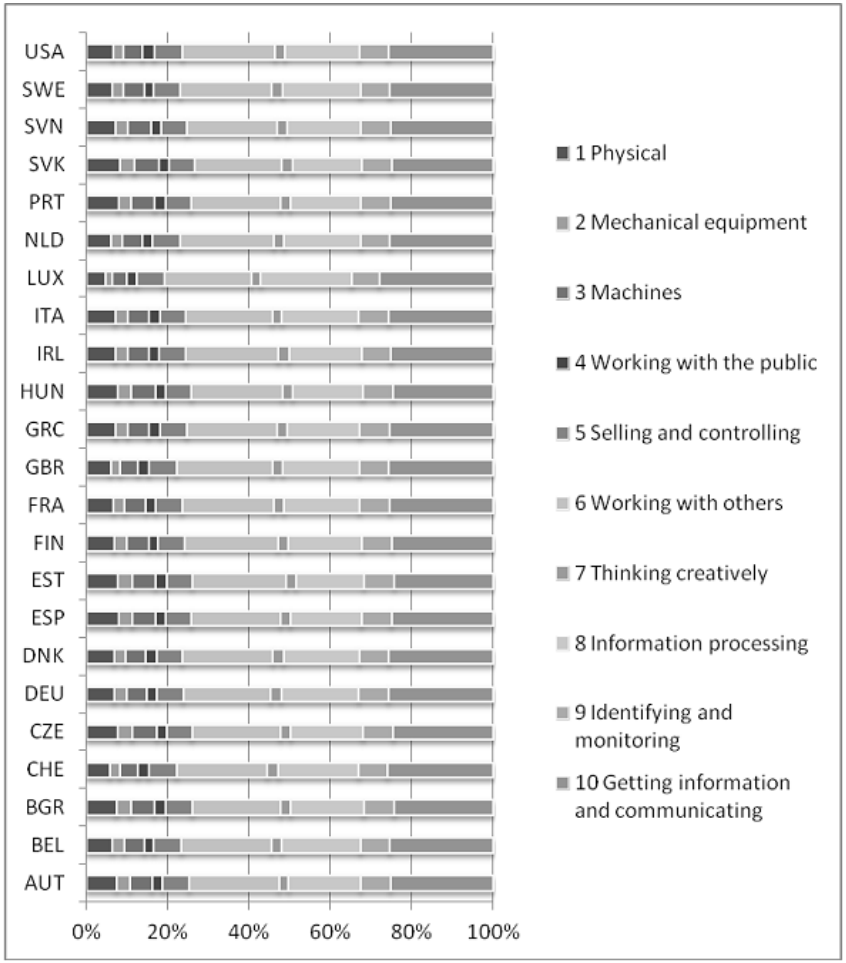
$$T_{th}^{y} = \begin{bmatrix} TI_{t11} & TI_{t1s} \\ TI_{th1} & TI_{ths} \end{bmatrix} x \begin{bmatrix} Y_{t1} \\ Y_{ts} \end{bmatrix}$$

Cluster analysis

- Getting information
- Making decisions and solving problems
- Updating and using relevant knowledge
- Organizing and prioritizing work
- Communicating with supervisors
- Establishing and maintaining interpersonal relationships



Task content of output



Correlations – output share of task clusters and imports of goods and services

	Working with others	Information processing tasks	Getting information and communicating
Import penetration goods	0.013	0.003	-0.011
Import penetration services	-0.034	0.119***	0.083***

Trade and the composition of tasks

- Only small changes in the task content of output between 2000 and 2008
- Task contents of exports and output are similar
- Import penetration of services is complementary to the tasks 'Information processing' and 'getting information and communicating'
- Outsourced tasks become industries (e.g. computer services, office cleaning)

Concluding remarks

- Trade in tasks reality or hype?
- Distinguish between fragmentation of production and fragmentation of work:
  - Firms appear to outsource and offshore functions;
  - The outsourced functions become industries employing multi-tasked workers in many occupations
- We cannot measure trade in tasks, but we can analyse how trade affects the composition of tasks performed at home.
- Exporting services requires skills and infrastructure and market access through mode 4.

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Hildegunn.nordas@oecd.org

Thank you!