

Impact of industrial change on skills: longitudinal analysis of change in Lithuania

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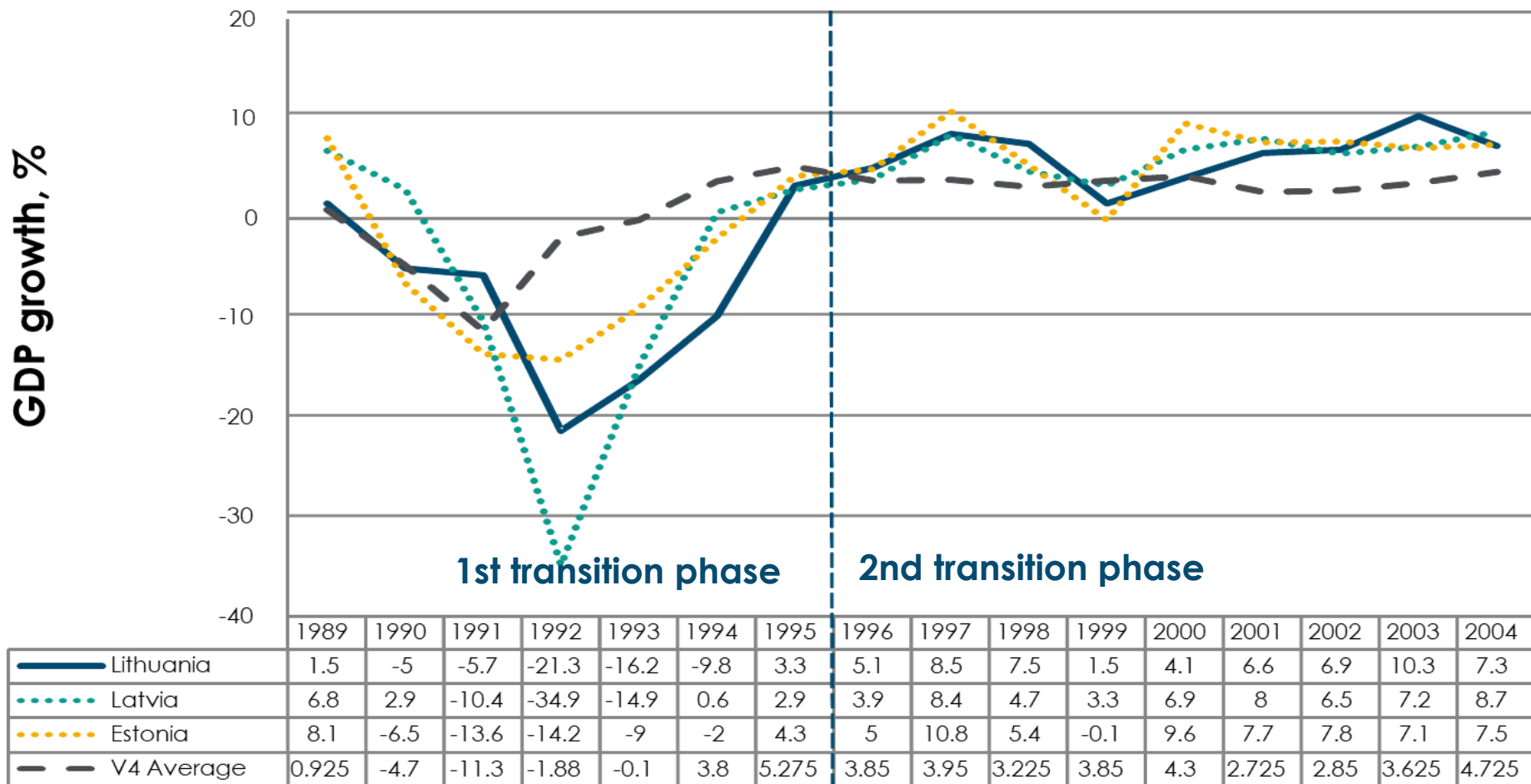
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Literature gaps

- Transition effects on skills at the **micro** level
- **Lithuania** as an extreme case:
 - Virtually no institutions
 - Demise of an **entire manufacturing sub-sector**
 - Significant **outflows** from the labour market + **unemployment**

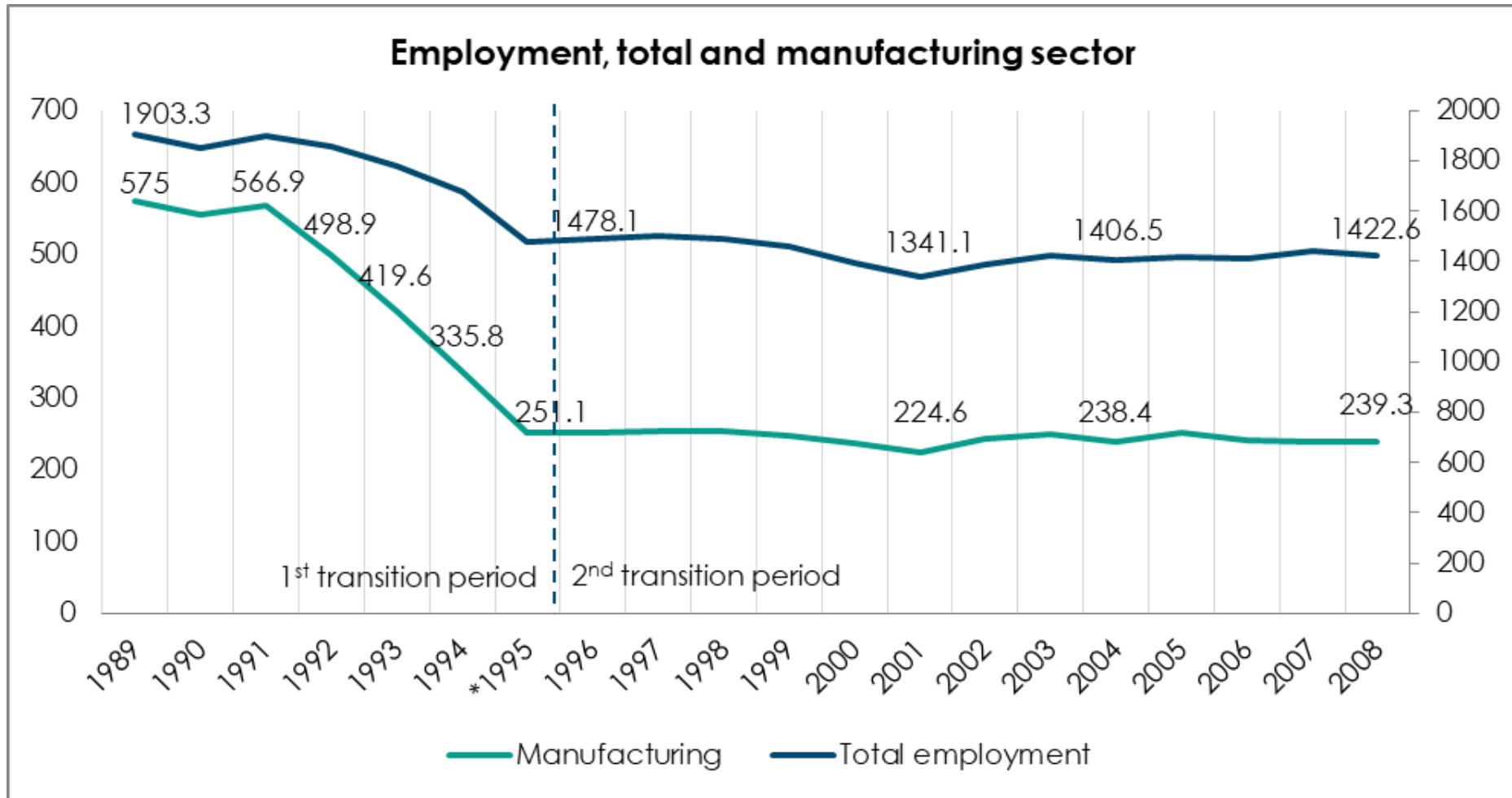
What are the skill change patterns of former workers of the Lithuanian consumer electronics industry?

Real GDP growth in CEE countries 1989-2004



Source: EBRD Transition Report (various years)

Employment, total and manufacturing 1989-2008



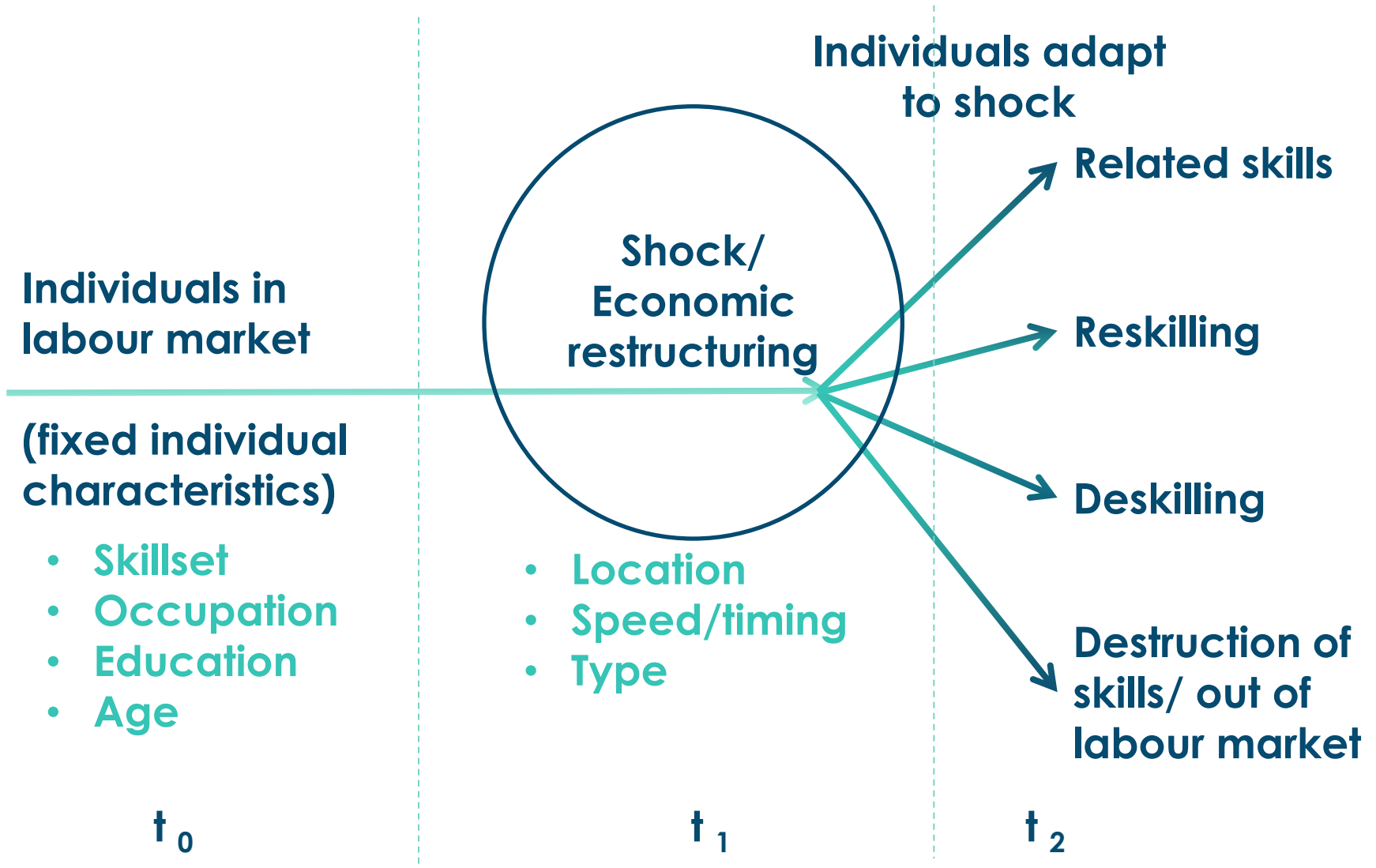
* - break in time series

Source: Statistics Department of Lithuania (compiled from various sources)

Conceptual framework: adaptation trajectories

- Workers adapt to new labour markets via **skill change**
 - **Related variety** – re-use and upgrade of ‘old’ skills
 - **Reskilling** – destruction of some old and acquisition of some new skills
 - **Deskilling** – use of only a part of ‘old’ skillset
 - **Destruction of skills** – exit from the labour market

Conceptual framework: trajectories



Data and methods

- **50 in-depth interviews**
 - Rich qualitative data on career track before, during and after employment in the factory
 - Maximum variation sampling
 - Face-to-face and telephone interviews (approx. 45 mins)
 - September 2017 – March 2018
- **Thematic Content Analysis**
- **Qualitative Comparative Analysis**

Operationalization of skillset

Transferrable skills	1	Marketing Director Property Manager Quality Manager	n/a	(Deputy) Plant Manager	Deputy Senior Constructor
	0.75	IT Administrator Engineer-Programmer HR Specialist	Quality Specialist Senior Manufacturing Supervisor	Controller	Engineer-Constructor Head of Mechanics Department
	0.25	Warehouse Clerk Warehouse Supervisor	Manufacturing Supervisor Technological Supervisor	n/a	n/a
	0	Solderer Metalworker Warehousekeeper Machine Operator	n/a	n/a	n/a
		0	0.25	0.75	1

Sector-specific skills

Source: own elaboration. Note: n/a – occupations with the relevant combination of transferrable and sector-specific skills were not present in the sample.

TCA results: typical cases of adaptation

T1: Related skills	T2: Reskilling	T3: Deskilling
Male, 47 y/o	Female, 52 y/o	Female, 51 y/o
Highly-educated	Highly-educated	Special upper secondary education
Workshop Deputy Manager to Deputy Director in related enterprise	Engineer-Constructor to Specialist in Public Social Security Agency	Worker to Cleaner in major retail chain
Many deep transferrable skills, some deep sector-specific skills	Some deep transferrable skills, many deep sector-specific skills	Few narrow transferrable and sector-specific skills
Factory disintegrated	Factory went bankrupt	Factory disintegrated

Preliminary QCA results

- What conditions lead to Related skills outcome?

Complex solution				Parsimonious solution			
frequency cutoff: 1.000000 consistency cutoff: 0.846154				frequency cutoff: 1.000000 consistency cutoff: 0.846154			
	Raw coverage	Unique coverage	Consistency		Raw coverage	Unique coverage	Consistency
~factory*~trskills*~jobchangeage	0.284672	0.087591	0.847826	~jobchangeage	0.722628	0.459854	0.825000
education*factory*trskills	0.284672	0.094890	0.951219	education*factory	0.350365	0.007299	0.857143
education*~factory*~jobchangeage	0.445255	0.021898	0.847222	factory*trskills	0.306569	0.007299	0.954545
education*trskills*~jobchangeage	0.481752	0.029197	0.929577	solution coverage: 0.832117 solution consistency: 0.832117			
solution coverage: 0.751825 solution consistency: 0.880342							

Source: own elaboration. Note: variable coding is presented in Annex 2. '~' indicates negation, '*' – conjunction of conditions.

Conclusions

- **Transferrable skills were key**
 - Is this due to sector-specific skill coding choices?
- **Occupation explains little**
 - Is this due to:
 - Specificities of Soviet factories (tight networks transcending occupational levels)?
 - Deficiencies in our QCA model?
- **Need to account for workers that dropped out of the labour market (*social exclusion*)**

VISIONARY ANALYTICS



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Thank you!