

TRANSITION TO THE PRODUCTION OF EVs IN THE INTEGRATED PERIPHERY OF THE EUROPEAN AUTOMOTIVE INDUSTRY

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BASIC FEATURES OF INTEGRATED PERIPHERIES IN AUTOMOTIVE INDUSTRY

MACRO-REGIONAL PRODUCTION NETWORKS

Automotive industry in East-Central Europe



Source: Pavlínek (2017)

- Dynamic regions of growth and development
- Lower wages than in traditional core regions
- A sizeable labor surplus at the initial stages of growth
- Geographic proximity to large and lucrative markets
- Membership in regional trade agreements or preferential trading arrangements
- **High degree of foreign ownership and control**
- Strongly export-oriented production of standardized cars, niche-market vehicles and automotive components
- **Limited development of high value-added and strategic functions**
- FDI-friendly state policies
- Weak labor unions, more liberal labor codes
- Underdeveloped domestic automotive industry
- Integration into macro-regional production networks as assembly platforms through predominantly dependent supplier linkages

Index of foreign control, 2018

Slovakia	98.1
Hungary	95.6
Romania	93.1
Czechia	93.0
Bulgaria	89.8
Poland	88.4
Spain	84.3
Britain	83.6
Lithuania	82.6
Portugal	81.3
Slovenia	80.7
Bosnia and Herzegovina	78.7
Austria	78.1
Belgium	75.1
Ireland	65.2
Sweden	63.8
Estonia	60.9
Netherlands	59.0
Croatia	54.2
Denmark	38.6
Norway	30.9
Finland	24.8
France	24.0
Italy	21.1
Germany	15.0

Source: Calculated from data in Eurostat (2021)

INTEGRATED PERIPHERY: HIGH DEGREE OF DEPENDENCE ON FOREIGN CAPITAL

- More than €35 billion invested between 1990 and 2015
- More than 1,241 new supplier plants built between 1997 and 2016
- The index of foreign control in the European automotive industry in 2018
 - The average value of the share of foreign controlled enterprises of five indicators in the manufacture of motor vehicles, trailers and semi-trailers (NACE_R2): production value, value added at factor cost, gross investment in tangible goods, number of persons employed, and turnover or gross premiums written
- Highly dependent position in automotive GPNs

INDEX OF INNOVATION, 2017

Sweden	0.99
Germany	0.92
Austria	0.63
Britain	0.61
Netherlands	0.46
Italy	0.45
France	0.36
Finland	0.28
Croatia	0.24
Slovenia	0.23
Ireland	0.22
Denmark	0.21
Belgium	0.20
Spain	0.20
Portugal	0.15
Czechia	0.14
Hungary	0.13
Poland	0.13
Lithuania	0.12
Latvia	0.10
Romania	0.09
Estonia	0.08
Slovakia	0.08
Bulgaria	0.04

INTEGRATED PERIPHERY: WEAKLY DEVELOPED INNOVATION ACTIVITIES IN THE AUTOMOTIVE INDUSTRY

- **Index of innovation:** The share of total R&D personnel and researchers of persons employed and the share of business expenditure on R&D of the total value of production in the automotive industry
- Measures the relative importance of innovation activities in the automotive industry of a given country.
- Higher rates of innovation in the core and semiperiphery than in the integrated periphery

THE EFFECTS OF THE TRANSITION TO EVs

- It will have significant effects for the automotive industry of ECE: its structure, employment etc.
- ECE is not and will not be a center of innovation for electromobility
- The transition driven by core-based TNCs
- The highly dependent peripheral position of ECE in the European automotive industry will not change

THE EFFECTS OF THE TRANSITION TO EVs

- The transition will be faster in core areas and the rest of Western Europe than in peripheral areas
 - A slower introduction of mass production of EVs in ECE than in Western Europe is likely
- Production of cars with combustion engines will continue longer in ECE than in Western Europe
 - Newer, more modern factories
 - Lower production costs
 - Older technologies continue longer in peripheral locations according to the product life cycle model

THE EFFECTS OF THE TRANSITION TO EVs

- The drive for profit will prevail in the long run
 - Lower cost locations will continue to be attractive
- Continuing location advantages of ECE for the automotive industry
 - Low wages compared to Western Europe
 - Geographic location: proximity of the West European market
 - Membership in the EU
 - ECE will continue to be an attractive location for potential new EV assembly plants (e.g., Chinese) and the production of battery cells and components