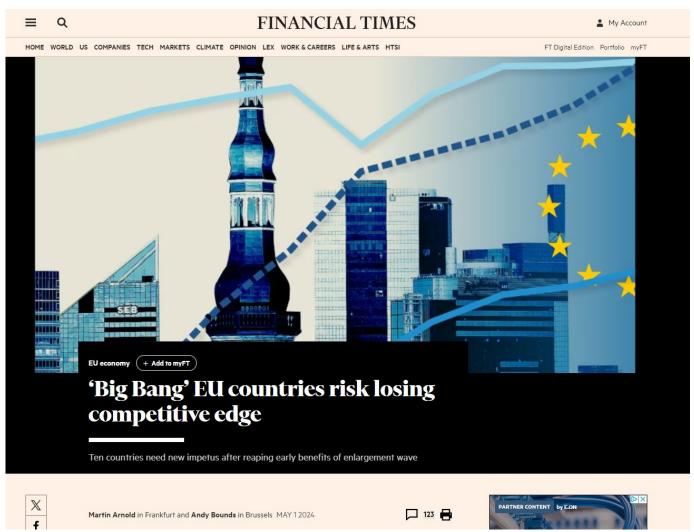


**CESEE** still in the fast lane or (where) does their growth model need polishing? 92<sup>nd</sup> East Jour Fixe, Oesterreichische Nationalbank Vienna, September 11, 2024 Tomas Slacik Oesterreichische Nationalbank www.oenb.at



### So far so good, but what's coming next? CESEE losing their competitive edge?



"The spectacular economic growth of (...) countries that joined the EU two decades ago (...) makes them one of the continent's clearest success stories. But these countries now need to find new sources of growth to avoid losing their competitive edge, (...), after the early gains from joining the EU start to fade



# Crying wolf or cause to prick our ears?







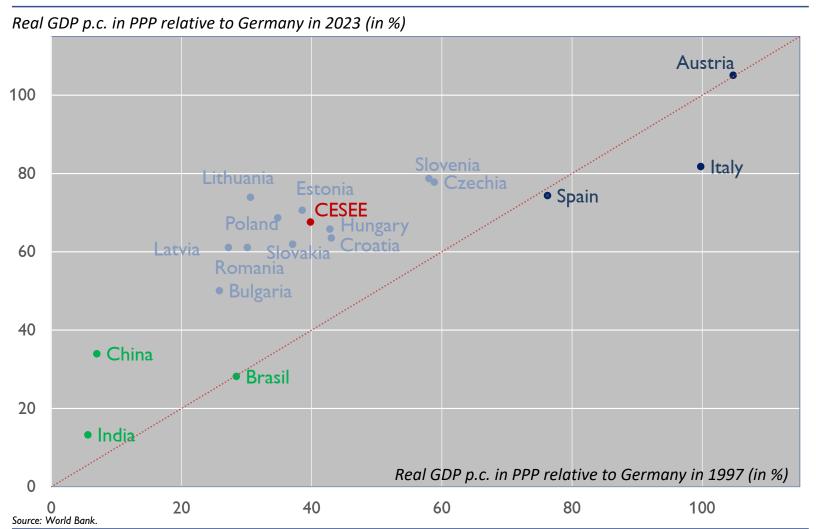
#### All good things (and presentations) come in threes

- Convergence in CESEE: are the fat years over?
- Deeper dive into into growth drivers: capital, labor and economic structure
- Wrap-up and policy conclusions



# Convergence in CESEE - particularly strong in per capita terms

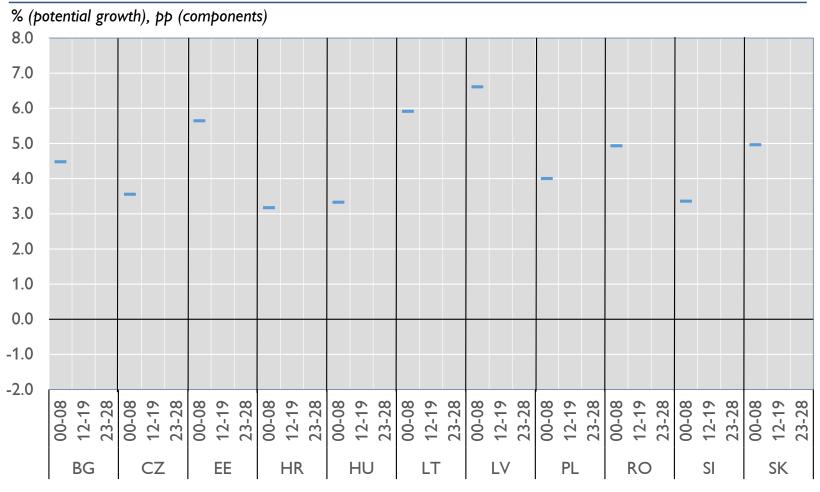
Convergence relative to Germany 1997-2023, real GDP p.c. in PPP (%)





#### Yet the strong economic growth recorded before 2008...

#### Potential GDP growth before the GFC

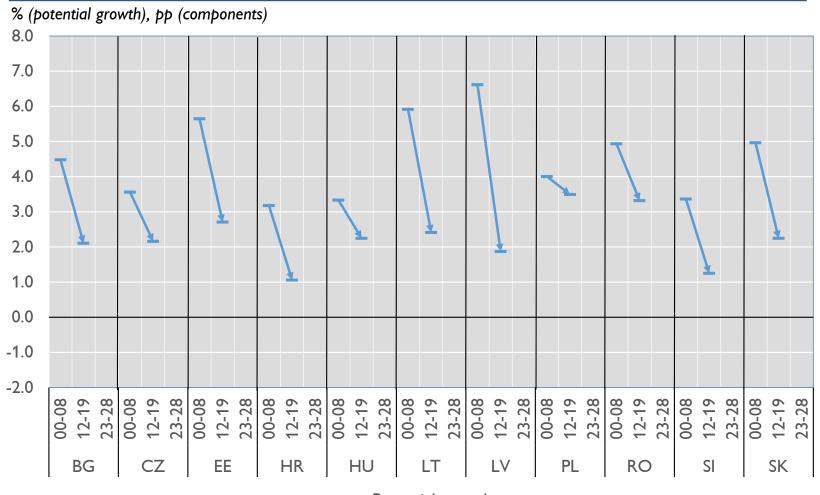


—Potential growth



#### ...declined markedly after the GFC

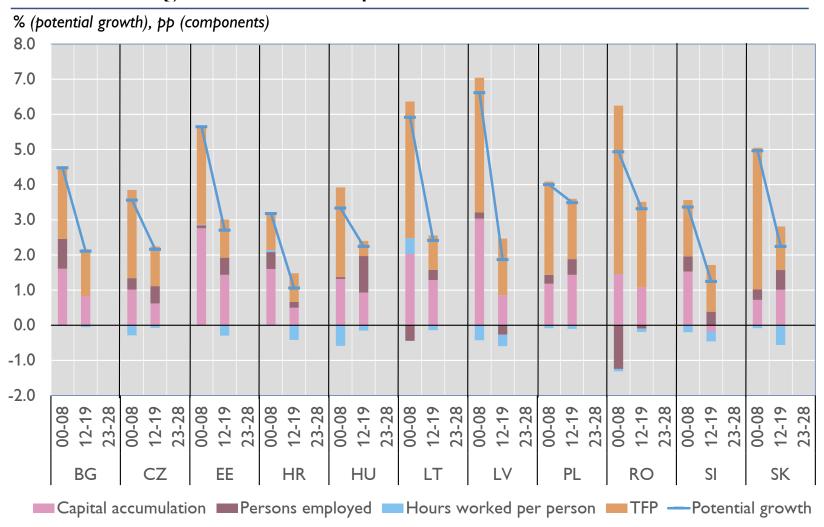
#### Potential GDP growth before and after the GFC





#### The slowdown driven mainly by TFP, mostly due to external factors

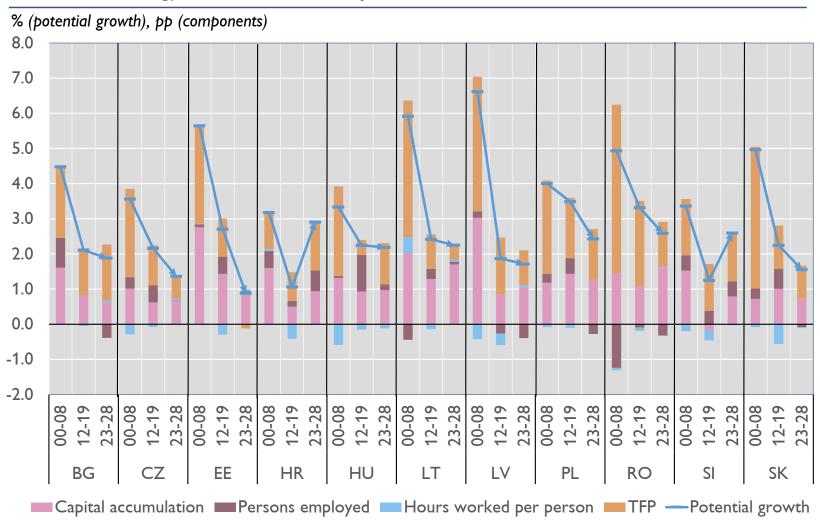
#### Potential GDP growth and its components before and after the GFC





### No boost on the horizon calling for CESEEs own efforts

#### Potential GDP growth and its components, before, after the GFC and outlook





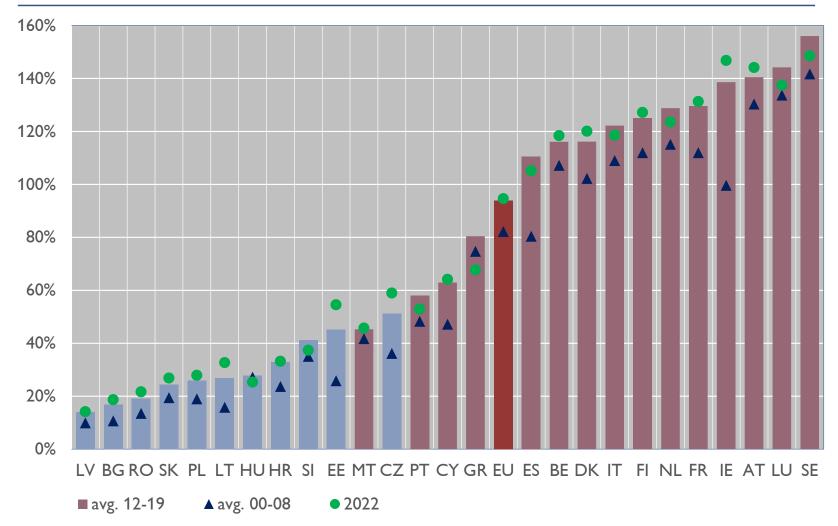
#### All good things (and presentations) come in threes

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# Still a significant gap in capital stock compared to advanced countries

Net capital stock per person employed (Germany=100%)

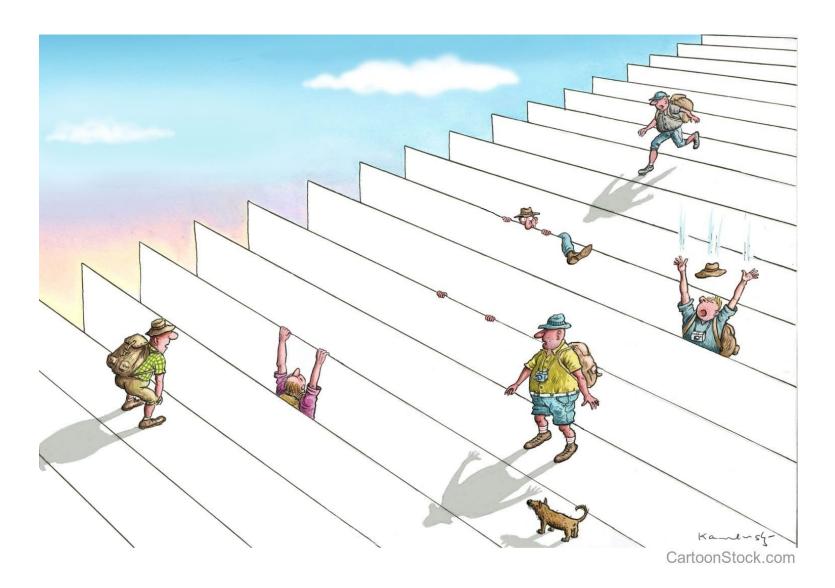


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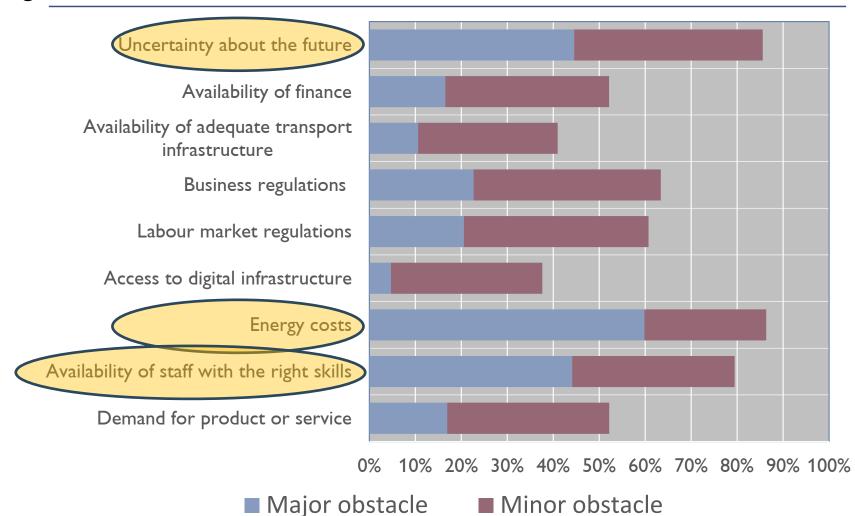
# Has there been an investment lag? Challenging task...





### Uncertainty, energy costs and lack of skilled staff prevent stronger investments

Limiting factors to CESEE firms' investment (% of firms reporting the respective obstacle category)



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### Indeed, energy not cheap in EU-wide, let alone global comparison

Industrial prices of electricity and gas in 2023 (in euro cent per KWH)

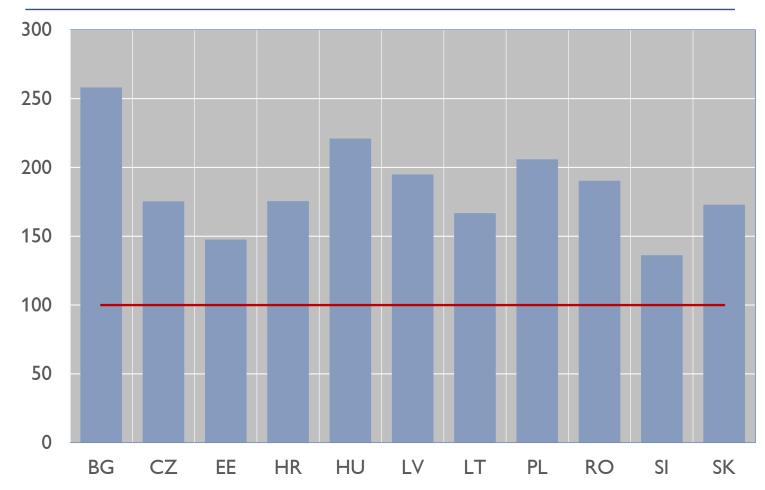


Electricity ······ Electricity EU min (SE) – – Electricity EU max (CY)



### Output in CESEE still very energy-intense (despite improvements)

Energy intensity: energy usage per unit of real GDP (EU=100), 2021



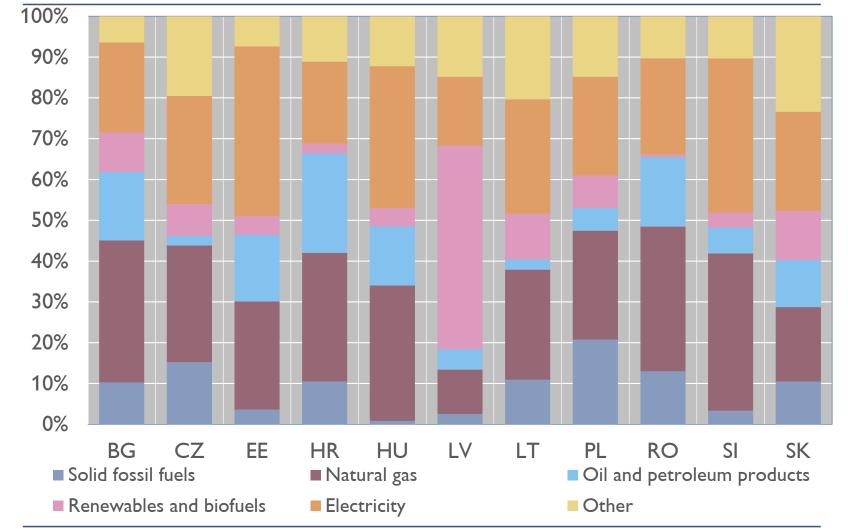
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Source: Eurostat



### Largest consumers rely heavily on fossil-based energy whose costs are set to rise

Relative shares of energy sources in five most energy-consuming sectors in a given country



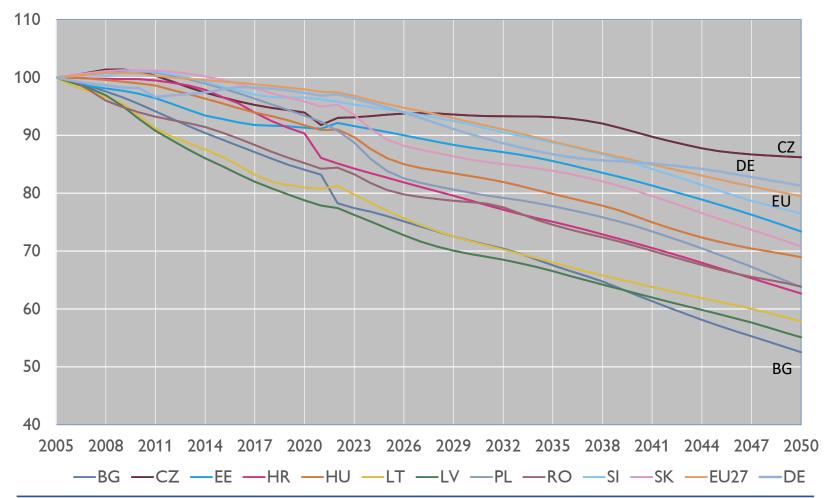
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#### Underutilized labor needs to be activated given the demographic challenge ahead

Projection of working age population (population ages 15-64, 2005=100)

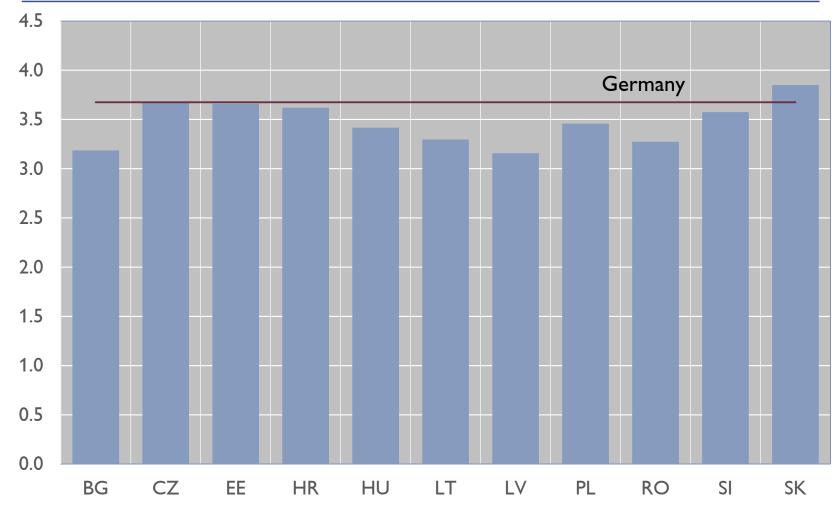


Source: World Bank



### By and large, human capital in CESEE comparable with or even outperforming AE

#### Human Capital Index (scale 0-5), 2019



Source: PWT 10.01

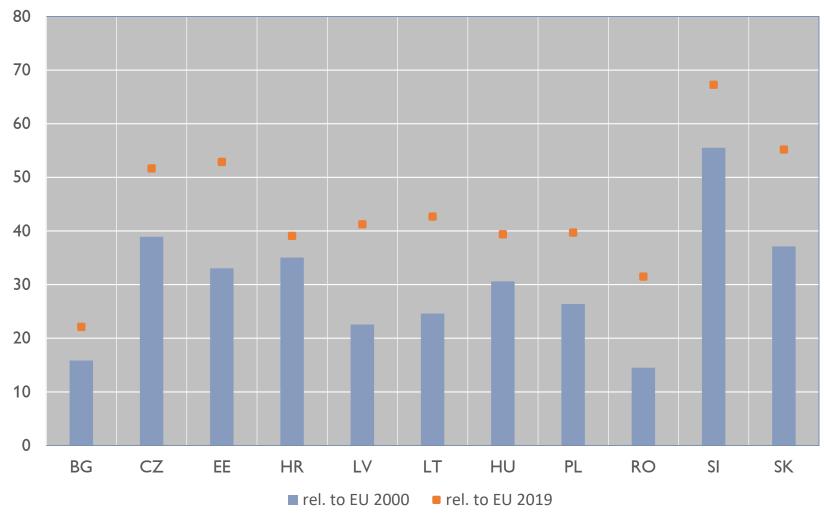
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# CESEE work significantly longer hours due to, inter alia, lower labor productivity

#### Labor productivity relative to EU (% of EU)



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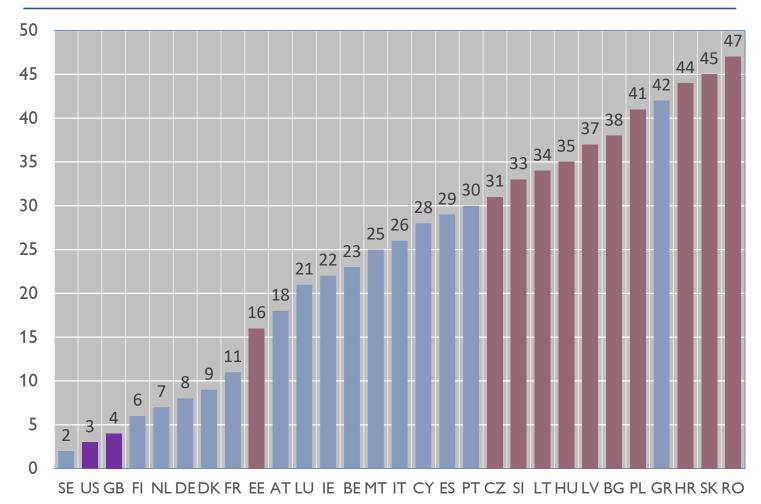
Source: Eurostat

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### Decline in productivity growth due to low innovative capacity?

Worldwide rank in the Global Innovation Index (comprising 80 innovation indicators) in 2023

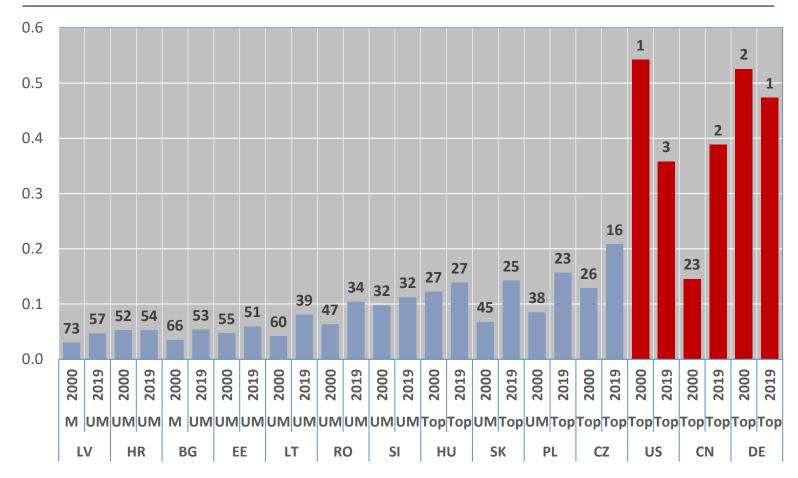


Source: Global Innovation Index Database, WIPO



### Manufacturing remains key and has improved its competitiveness...

#### Competitive Industrial Performance Index, worldwide rank and quantile



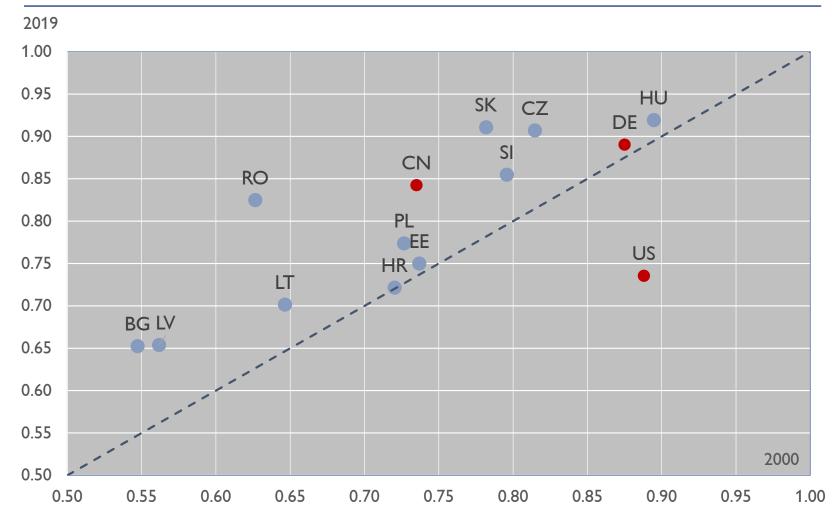
Note: Countries ordered by the CIP in 2019. Labels show the worldwide rank. Acronyms M (=Middle), UM (=Upper Middle), Top show the quantile a country belongs to in the worldwide distribution.

Source: UNIDO



# ...and in some aspects it ranks among the world's top performers

#### **Industrial Export Quality Index, 2000 vs 2019**



Source: UNIDO

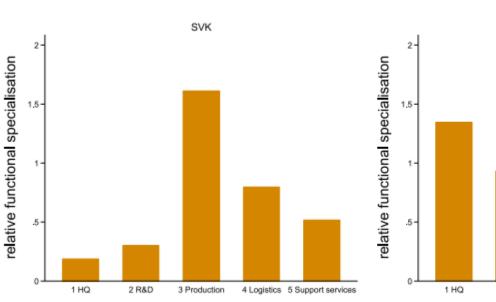


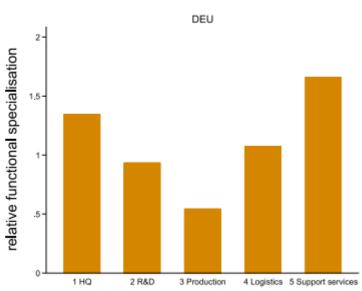
### Deep integration in Global Value Chains: Boon and Bane



#### Relative Functional Specialisation: Factory vs. Headquarter economies

Slovakia and Germany





Source: Stöllinger (2021)



#### All good things (and presentations) come in threes

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#### Wrap-up

- Convergence slowed down significantly since the GFC, despite heterogeneity in virtually all industries
- Structural rather than cyclical drivers at play may dampen the convergence process in future
- TFP the primary culprit behind the slowdown
  - driven mainly by external factors, but unlikely to provide a boost in future
  - CESEE must make substantial own efforts to polish their economic model and thus boost growth
- Large capital stock gap relative to AE remains
- Expensive energy, uncertainty, lack of skilled staff hinder investments
  - Reduce energy intensity of CESEE economies, render energy cheaper and greener at the same time
  - Activate underutilized labor (oldest and youngest cohorts, women, minorities, refugees). Increase inter-regional labor mobility.



#### Wrap-up

- Labor productivity growth slowed down, mainly on account of lower TFP growth and tangible non-ICT capital
  - Low innovation capacity?
- Manufacturing remains key with a particular focus on automotive
  - While competitive deep participation in GVCs bears risks and vulnerabilities, inter alia cemented economic structures



#### **Policy conclusions**

- CESEE countries will have to grow faster and better
- How? Some of the key aspects and prerequisites:
  - > Reduce energy intensity
  - > Render energy cheaper and greener:
    - invest in energy generation, distribution and storage
    - reconsider structural features of the energy market, pricing and taxation.
  - Activate dormant labor potential and upgrade human capital
  - > Become more innovative
  - Broaden functional specialization towards more knowledge-intense value chain functions

# Thank you for your attention

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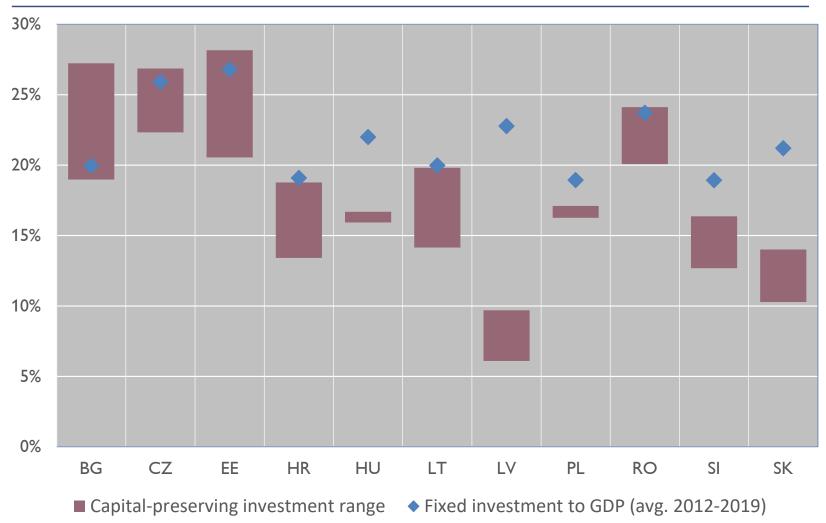
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#### Investment seems mostly sufficient to preserve capital-to-output ratio

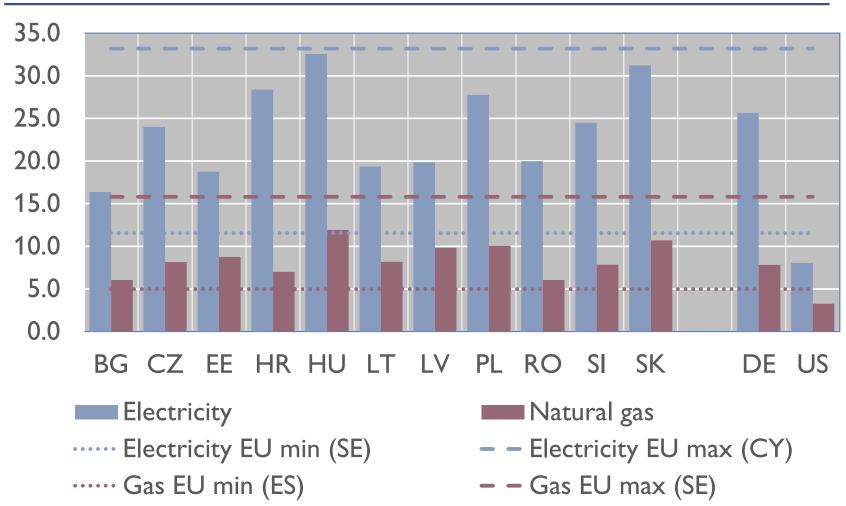
#### Capital-preserving investment (range) vs. actual investment (% of GDP)





#### Energy costs rather on the high side in EU-wide and global competition

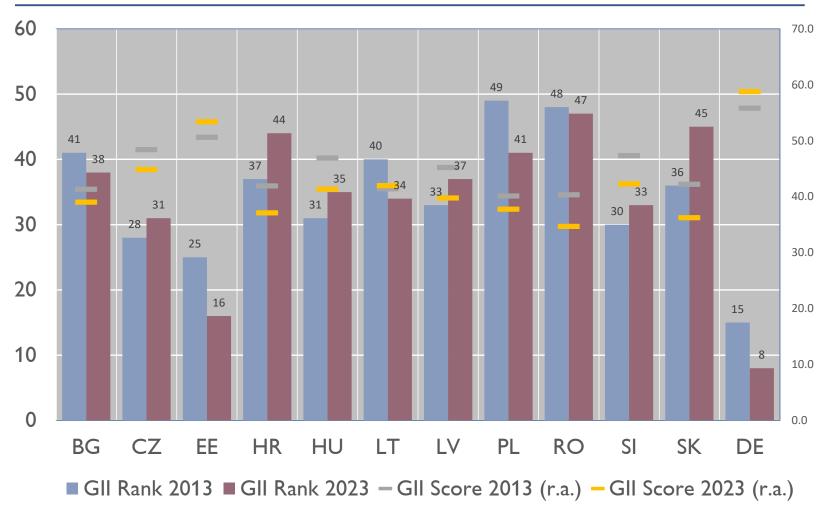
Industrial prices of electricity and gas in 2023 (in euro cent per KWH)





### Innovation capacity in CESEE: heterogeneous but not too bright picture

Global Innovation Index – worldwide rank (l.a.) and score (r.a.) in 2013 and 2023





#### Despite some shift to promising sectors the latter still too small for a new growth model

#### Change in industry shares in value-added between 2000 and 2019 (pp)

NACE-Code	Description	BG	CZ	EE	HR	HU	LT	LV	PL	RO	SI	SK
Α	Agriculture, forestry and fishing	-8.8	-1.5	-1.6	-2.5	-1.8	-2.8	-0.2	-0.8	-7.1	-1.2	-0.1
В	Mining and quarrying	-0.4	-0.7	-0.3	-0.3	0.1	-0.4	0.4	-0.8	-1.3	-0.3	-0.4
С	Manufacturing	1.9	-0.6	-2.2	-5.7	-1.8	-1.0	-3.0	1.2	-3.0	-1.2	-0.5
C10-C12	Food, beverages and tobacco	-0.3	-1.3	-1.3	-1.0	-1.3	-1.1	-2.6	-0.1	-1.8	-1.0	-1.4
C13-C15	Textiles and wearing apparel	-0.5	-0.9	-1.8	-0.9	-1.2	-2.6	-1.3	-0.5	-1.0	-1.7	-1.2
C16-C18	Wood, paper, printing and rep.	0.3	-0.3	-0.2	-0.1	-0.4	0.1	-0.4	-0.1	-0.5	-0.8	-0.9
C19	Coke and refined petroleum	-1.7	-0.4	0.3	-1.4	-0.4	0.0	0.0	0.1	-0.4	0.0	-0.3
C20-C21	Chemicals and pharmaceuticals	-0.3	-0.5	-0.3	-1.7	0.1	0.4	0.4	-0.2	-0.4	0.7	-0.8
C22-C23	Rubber and plastic products	0.9	-0.5	-0.2	-0.4	0.3	0.4	0.7	0.0	-0.1	0.2	0.1
C24-C25	Basic metals and metal products	0.8	-0.2	0.6	0.3	-0.2	0.5	0.0	1.0	-0.4	0.5	0.0
C26-C27	Computer, electronic and optical production, electrical equip.	0.8	1.0	0.7	-0.4	-0.7	-0.3	0.4	-0.2	0.1	-0.3	0.3
C28	Machinery and equipment n.e.c.	0.4	0.2	0.2	0.0	0.3	0.3	0.0	0.0	-0.2	0.7	0.3
C29-C30	Motor vehicles and transport equipment	0.4	2.4	0.0	-0.3	1.1	0.1	0.0	0.9	1.8	0.7	3.6
C31-C33	Installation of machinery, other machinery	0.9	-0.1	-0.5	0.2	0.5	2.1	-0.1	0.3	-0.1	0.0	-0.1
D-E	Utilities	-1.5	0.0	0.1	0.4	-1.5	-1.4	-1.6	0.2	0.0	0.2	-0.1
F	Construction	-0.7	-0.5	1.0	0.5	0.7	1.3	-0.5	-0.5	1.2	-0.5	1.1
G	Wholesale and retail trade; repair of motor vehicles	4.8	-0.8	-0.2	1.2	0.6	0.2	0.1	-3.8	-1.1	1.2	-2.3
Н	Transportation and storage	-2.7	-1.7	-3.9	-0.5	0.4	3.9	-3.6	2.0	0.1	1.1	-0.6
1	Accommodation and food services	0.3	-1.2	0.4	2.8	-0.1	0.3	0.8	0.3	0.0	0.2	-0.2
J	Information and communication	4.4	2.0	1.7	0.1	-0.1	-0.9	0.1	0.7	0.9	0.2	1.1
K	Financial and insurance activities	3.4	0.9	0.4	1.1	0.2	0.3	-0.3	-0.4	-1.9	-1.0	0.1
L	Real estate activities	-1.2	1.4	-0.9	-0.2	1.4	-0.2	5.6	-0.7	0.7	-0.6	0.0
M-N	Professional, scientific, technical activities+Admin. and support	2.7	1.3	4.5	3.5	3.0	3.5	1.9	2.6	5.8	2.7	2.1
O-Q	Public administration, defense, social sec., human health	-2.5	1.8	1.0	-2.0	-0.9	-2.7	-0.3	0.3	5.1	-0.1	-1.2
R-S	Arts, entertainment and recreation+other services	0.3	-0.4	0.0	1.7	-0.1	-0.1	0.4	-0.2	0.5	-0.8	1.1

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#### Manufacturing remains the key sector in most CESEE

#### Industry shares in value-added, 2019

