Mind the gap: structural investment needs in CESEE and the use of EU funds
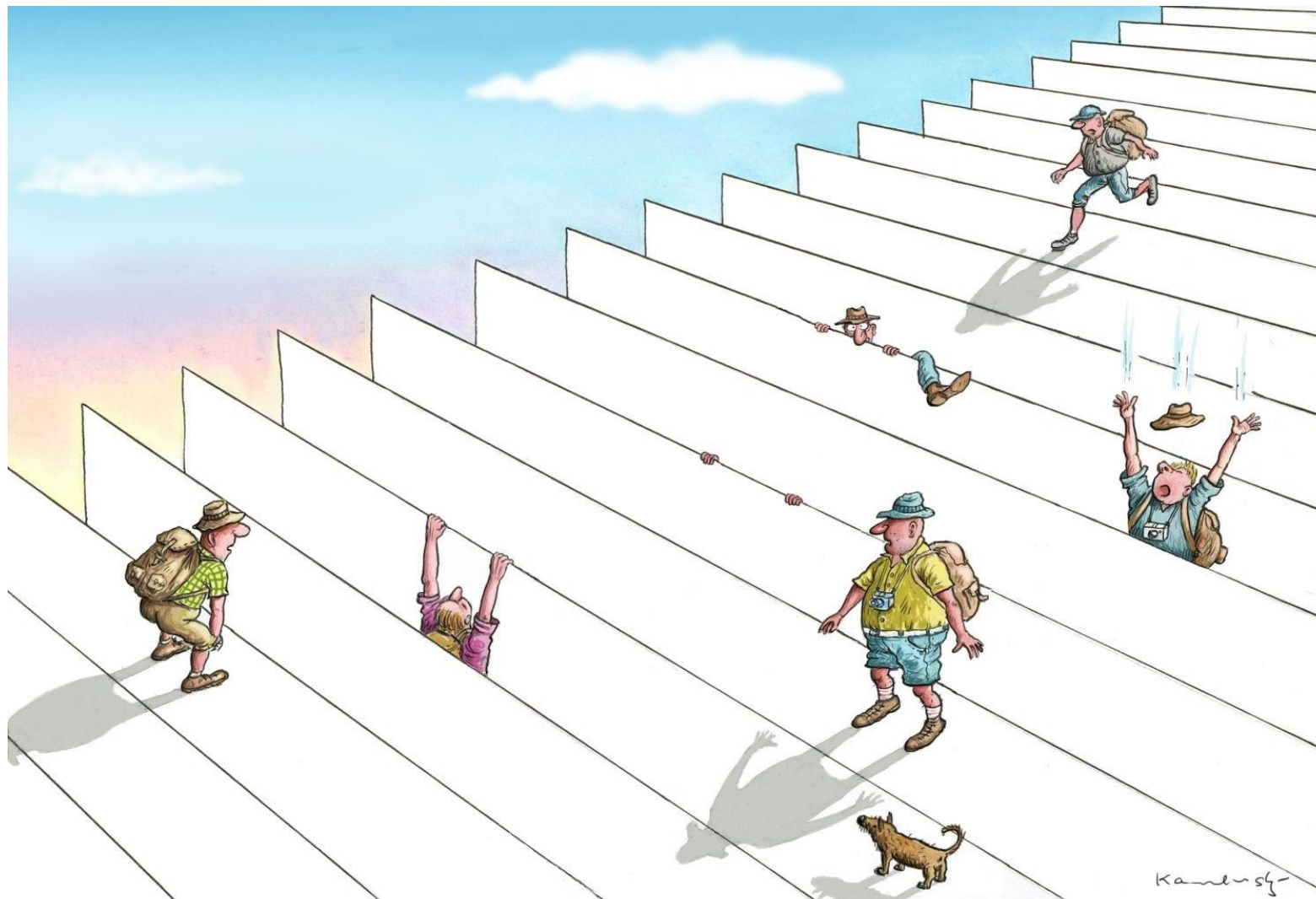
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Based on joint work with Rocco Bubbico and Miroslav Kollar (both EIB)

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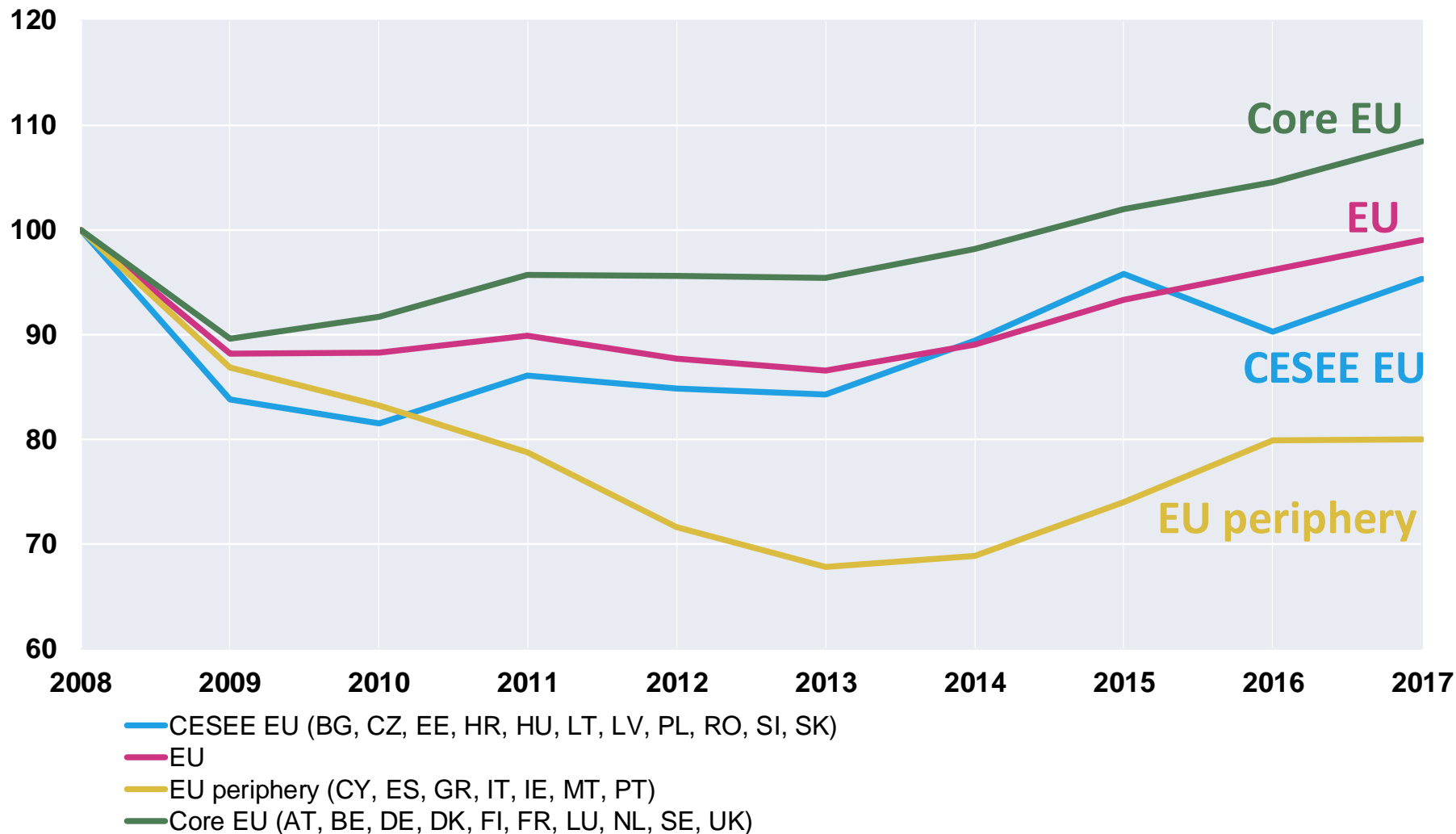# Is there a gap? If so, where?

CartoonStock.com

Outline

1. **Mind the gap: the challenge of identifying investment gaps**

2. **Where are structural investment needs in CESEE...**

3. **…and how do they relate to European Structural and Investment Funds (ESIF)?**

MIND THE GAP

Investment recovery in Europe is gaining steam

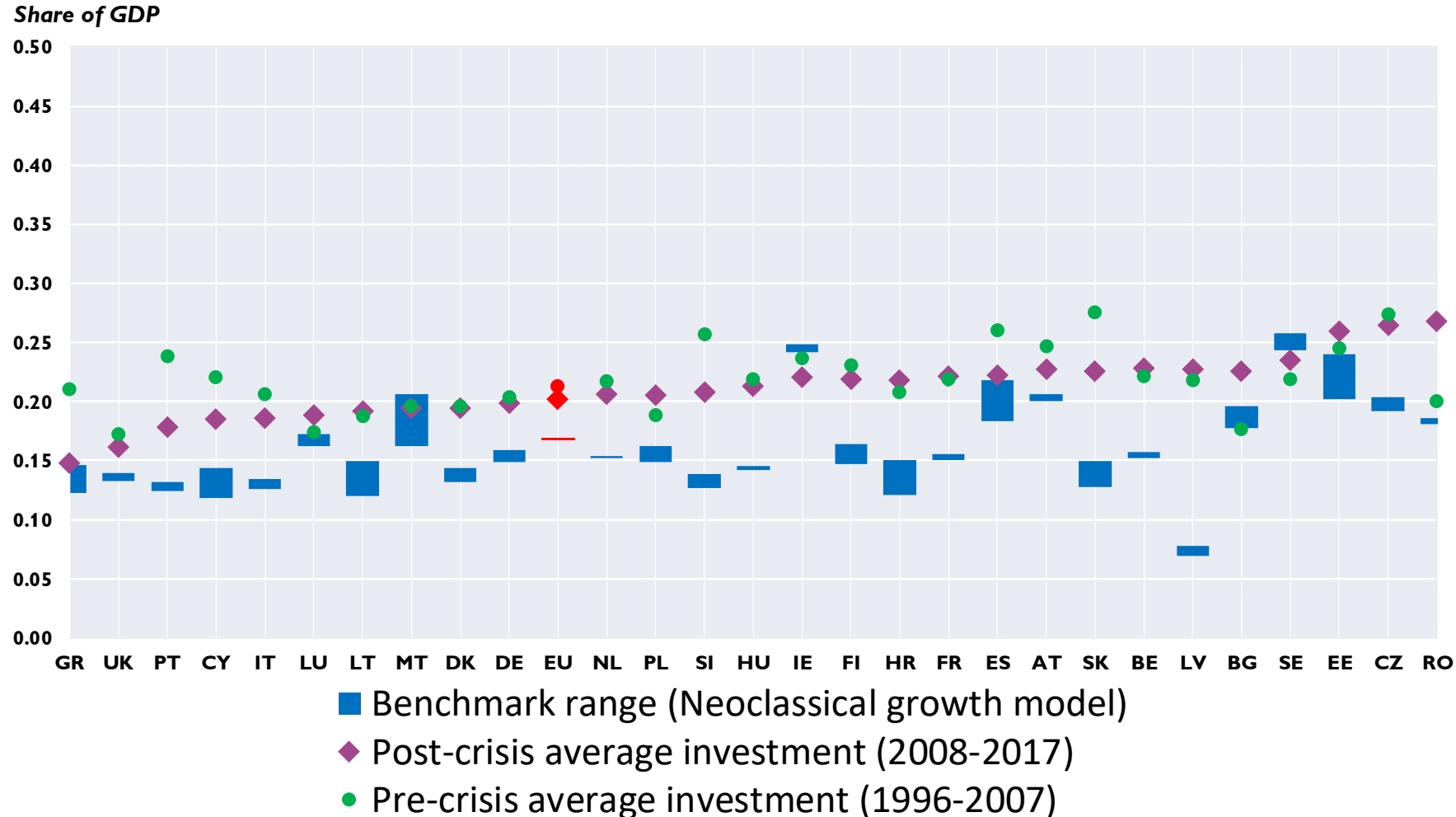## EU investment by country group

2008=100

Core EU

EU

CESEE EU

EU periphery

CESEE EU (BG, CZ, EE, HR, HU, LT, LV, PL, RO, SI, SK)
EU
EU periphery (CY, ES, GR, IT, IE, MT, PT)
Core EU (AT, BE, DE, DK, FI, FR, LU, NL, SE, UK)

Is there still an investment gap?...No easy answer

Capital-preserving investment (range) vs. actual investment
Capital stock source: Eurostat

Share of GDP

- **■ Benchmark range (Neoclassical growth model)**
- **◆ Post-crisis average investment (2008-2017)**
- **● Pre-crisis average investment (1996-2007)**

Let's take a microeconomic perspective

EIB Investment Survey

- A unique EU-wide annual survey of more than **12,000 firms (CESEE: 4,881)**

- Data on
  - firm characteristics and performance
  - **past investment** activities and **future plans**
  - sources of finance, financing issues and other challenges

- **Representative** across all **28 EU Member States** with respect to
  - firm size classes (**micro to large**) and
  - **four main sectors** (manufacturing, services, construction and infrastructure)

Firms' self-reported investment gap…

- **About 20% of CESEE firms** (and 15% in the EU) report that they have **invested too little over the last 3 years** to ensure the success of their business going forward.

- **Conjecture**: such firms should face capacity constraints

Capacity utilisation and investment gap - CESEE
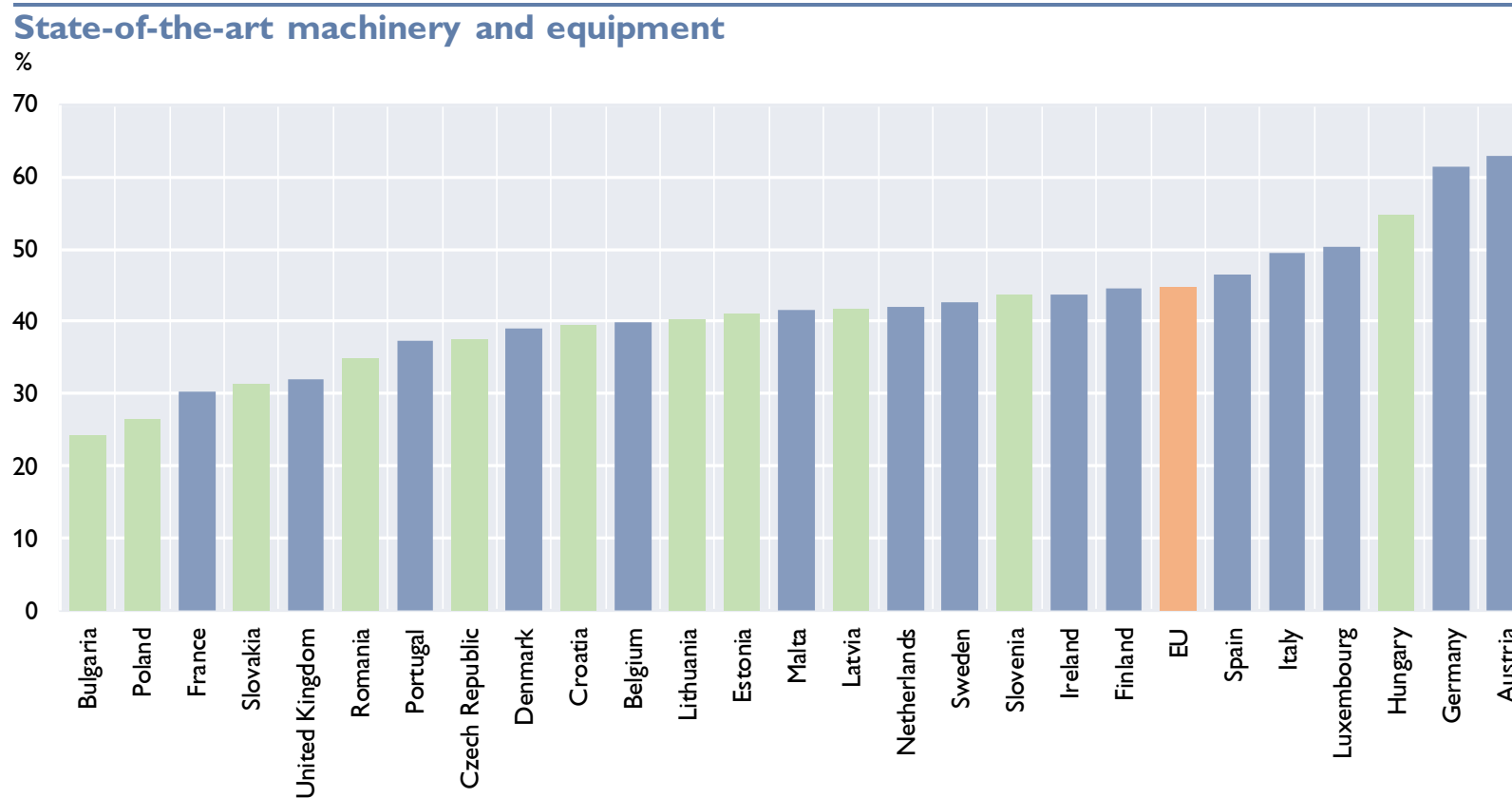
Share of firms reporting an investment gap

Share of firms at full capacity
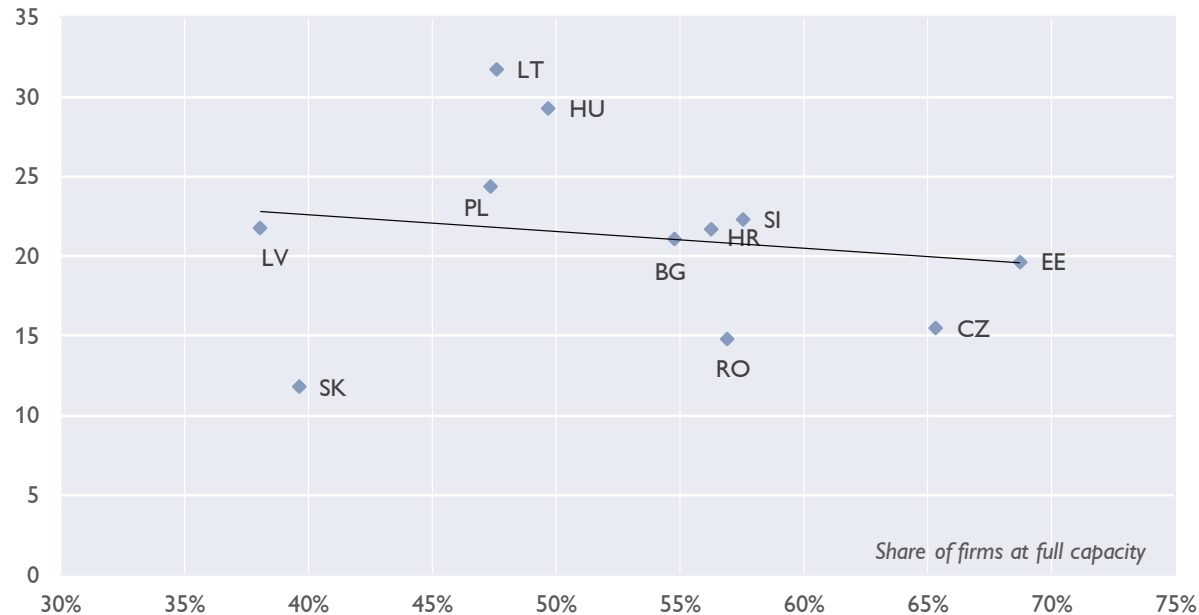
➤ If firms report an **investment gap**, they do **not** have a **lack of sufficient production capacity** (i.e. the quantity of capital) in mind.

Source: EIB.

…is not about the quantity but the quality of the capital stock

State-of-the-art machinery and equipment

Source: EIB.

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Let's take a closer look at gaps in structural investment

Set of **structural and competitiveness indicators** across **5 thematic areas**:

- Human capital
- R&D and innovation
- Environmental protection
- Transport and energy infrastructure
- ICT

…from various sources (Eurostat, OECD, WEF, IMF, World Bank)

…between **2007–2016**

➤ Which de facto corresponds to the **previous EU budgetary period**

Many shades of red: structural investment gaps in CESEE in 2007

Structural gap vis-à-vis the EU at the beginning of the EU budget period 2007-2013						
	Human capital	R&D and innovation	Environmental protection	Transport and energy infrastructure	ICT	Average
	Average standard deviations from the EU average					
BG	-1.1	-1.0	-0.5	-1.0	-1.1	-0.9
CZ	0.3	-0.1	0.1	0.8	-0.2	0.2
EE	-0.1	-0.2	0.0	-0.2	0.4	0.0
HU	-0.4	0.2	-0.1	0.0	-0.4	-0.2
LV	-0.7	-0.9	0.2	-0.7	-0.7	-0.6
LT	-0.2	-0.8	0.6	-0.7	0.1	-0.2
PL	-0.3	-0.9	-0.5	-0.1	-0.9	-0.5
RO	-1.1	-1.1	-0.4	-0.5	-1.3	-0.9
SI	0.0	-0.1	0.0	0.1	-0.5	-0.1
SK	-0.2	-0.7	0.1	-0.1	-0.5	-0.3
CESEE average	**-0.4**	**-0.6**	**-0.1**	**-0.3**	**-0.5**	**-0.3**

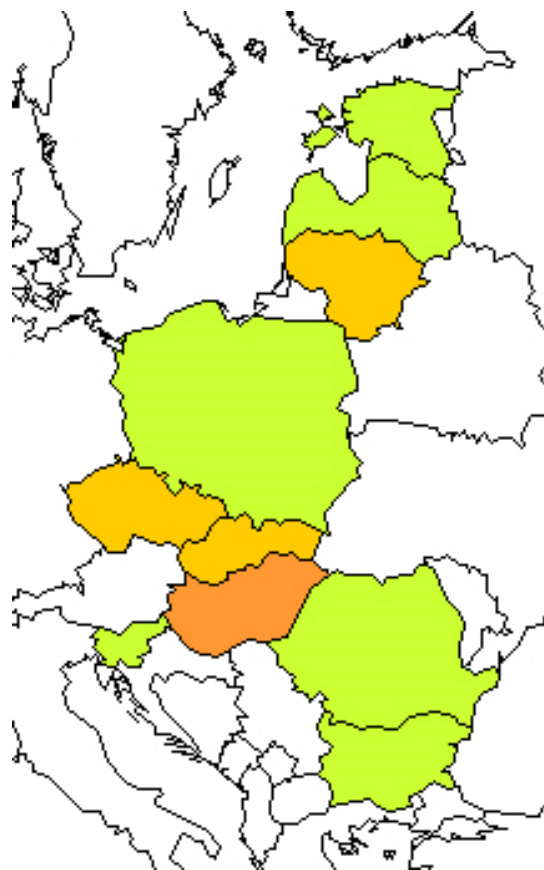*Source: Eurostat, OECD, World Bank, WEF, authors' calculations.*

Note: Shades of red/green indicate distance below/above the EU average.

Many shades of red: structural investment gaps in CESEE in 2007

Note: Shades of red/green indicate distance in standard deviations below/above the EU average.
Source: Eurostat, OECD, World Bank, authors' calculations.

Has there been any convergence over the previous EU budget period?

Note: Shades of red/green indicate a widening/narrowing of the gap vis-à-vis the EU average.
Source: Eurostat, OECD, World Bank, authors' calculations.

On average there was little convergence toward the EU average

Structural gap changes in CESEE over the 2007-2013 programming period (convergence perspective)						
	Human capital	R&D and innovation	Environmental protection	Transport and energy infrastructure	ICT	Average
	Standard deviations from the EU average					
BG	-0.09	0.08	-0.03	-0.03	0.36	0.06
CZ	-0.30	0.10	0.02	0.04	-0.08	-0.04
EE	0.26	0.41	-0.22	0.17	-0.04	0.12
HU	-0.48	-0.29	0.09	-0.24	-0.27	-0.24
LV	0.13	0.06	0.28	0.06	0.31	0.17
LT	0.07	0.02	-0.59	0.14	0.02	-0.07
PL	0.23	0.05	-0.04	0.00	0.35	0.12
RO	-0.28	0.05	0.31	0.11	0.09	0.06
SI	0.18	0.09	-0.07	0.02	0.18	0.08
SK	-0.44	-0.06	0.31	0.06	0.09	-0.01
CESEE average	**-0.07**	**0.05**	**0.01**	**0.03**	**0.10**	**0.02**

Source: Eurostat, OECD, World Bank, WEF, authors' calculations

Note: Shades of red/green indicate a widening/narrowing of the gap vis-a-vis the EU average.

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Most of the ESIF in per capita terms went to network infrastructure

2007-2013 European Structural and Investment Funds (ESIF)						
	Human capital	R&D and innovation	Environment protection	Transport and energy infrastructure	ICT	Sum
	EUR per capita					
BG	167.5	105.1	187.9	324.3	8.2	793.0
CZ	523.1	445.2	375.4	927.5	80.5	2351.6
EE	676.4	572.6	552.4	529.5	53.8	2384.7
HU	579.8	430.6	433.4	749.3	65.1	2258.3
LV	489.2	398.8	374.6	723.6	89.5	2075.7
LT	541.7	397.7	312.9	749.2	77.4	2078.9
PL	323.0	331.7	174.0	741.9	93.5	1664.1
RO	178.5	105.0	209.3	312.7	20.3	825.9
SI	319.5	537.1	369.4	539.7	72.1	1837.9
SK	483.4	273.1	325.3	685.1	176.9	1943.8
CESEE average	**428.2**	**359.7**	**331.5**	**628.3**	**73.7**	**1821.4**

Source: European Commission, authors' calculations.

Note: Values in each of the categories are marked with a color ranging from red (indicating the country that fares worst among CESEE EU Member States compared to the EU average) to green (indicating the country with the best score compared to the EU average.

Does the ESIF structure match the structural investment needs?

First hypothesis:

The weaker an area was in 2007, the more EU funds should have been allocated to that area.

➤ **Correlation** between our structural indicators and the ESIF allocations?

Correlation between the ESIF and the (change in) structural quality indicators

	Human capital	R&D and innovation	Environment protection	Transport and energy infrastructure	ICT
Correlation coefficient					
ESIF (EUR/capita) and indicators at the beginning of the programming period	0.63	0.74	0.49	0.60	0.26
ESIF (EUR/capita) and indicator changes					

Source: Authors' calculations.

Only in R&D are EU funds positively correlated with some convergence

Second hypothesis:
The **higher the ESIF allocation in an area**, **the greater the convergence** toward the EU.

➢ **Correlation** between the ESIF allocations and the change of our structural indicators?

Correlation between the ESIF and the (change in) structural quality indicators

	Human capital	R&D and innovation	Environment protection	Transport and energy infrastructure	ICT
Correlation coefficient					
ESIF (EUR/capita) and indicators at the beginning of the programming period	0.63	0.74	0.49	0.60	0.26
ESIF (EUR/capita) and indicator changes over the programming period (relative to the EU average)	0.01	0.26	−0.16	−0.18	−0.06

Source: Authors' calculations.

What does the literature say on "Has cohesion policy contributed to convergence?"

➢ It **depends**

➢ **Results range** from
  – 'Cohesion policy **reduces regional disparities**' (Leonardi, 2006) to
  – 'Cohesion policy has **no impact**' (Boldrin and Canova, 2001)

➢ Dall'Erba and Fang (2017): **meta-analysis of the wide literature** on the impact ESIF has on convergence; results are very **heterogeneous and depend on**
  – **Data** characteristics
  – Estimation **methodology**
  – **Model** specification
  – Economic **structure of regions**

➢ Bachtler et al. (2016) confirm, in their analysis of the long-term effectiveness of the cohesion policy, the wide-spread critique that **cohesion funds have been spent without conceptual thinking or strategic justification**

Conclusions

➢ Rather difficult to determine quantitative investment needs…

➢ …but evidence (e.g. EIBIS) suggests investment gaps in terms of capital quality

➢ Convergence of the quality of capital toward the EU average has been negligible over the last decade except for ICT

➢ Contrary to expectations, higher ESIF amounts are not really positively correlated with

   – the largest structural needs

   – more significant capital quality improvements

Policy conclusions:

➢ Need for a stronger linkage between allocated resources and structural reforms (as envisaged by the European Commission for the 2021–2027 Multiannual Financial Framework)

➢ Better targeting of investment needs and more efficent use of recources

Thank you for your attention!

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