



NARODOWY
BANK POLSKI

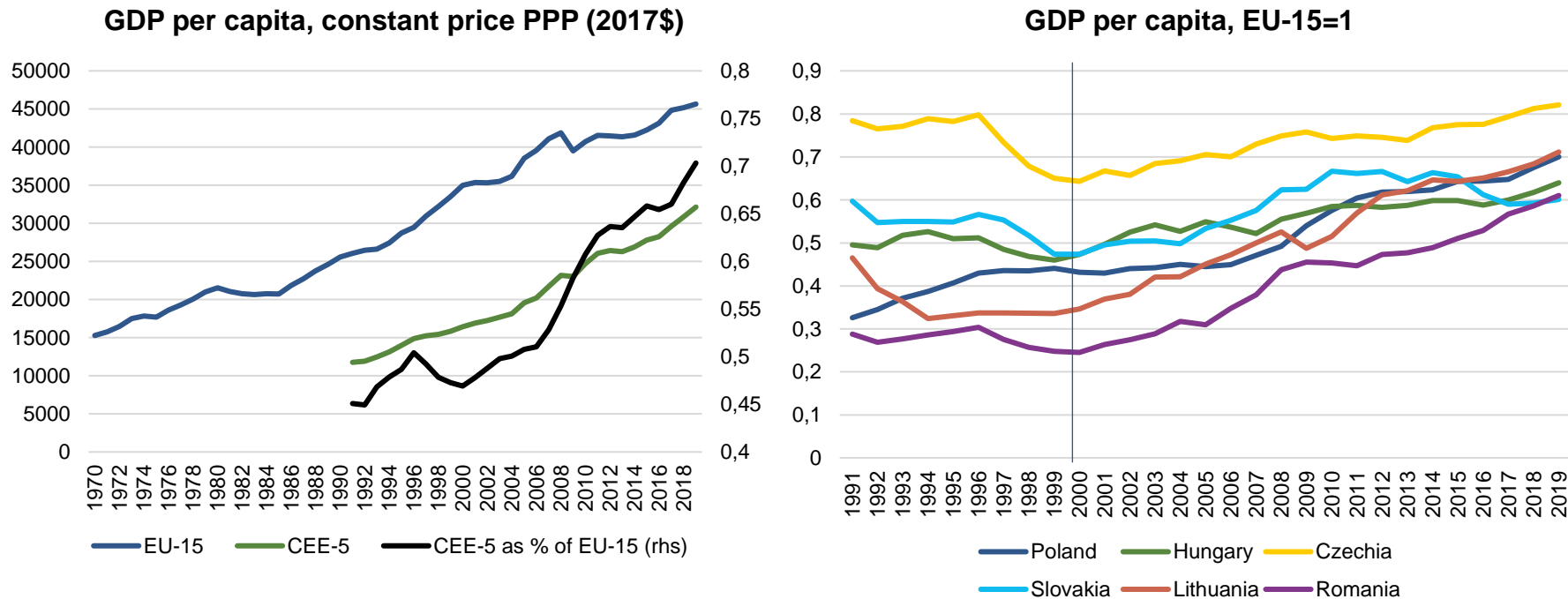
Drivers of growth and convergence of Central European Economies

Jakub Growiec

Warszawa, October 21, 2022

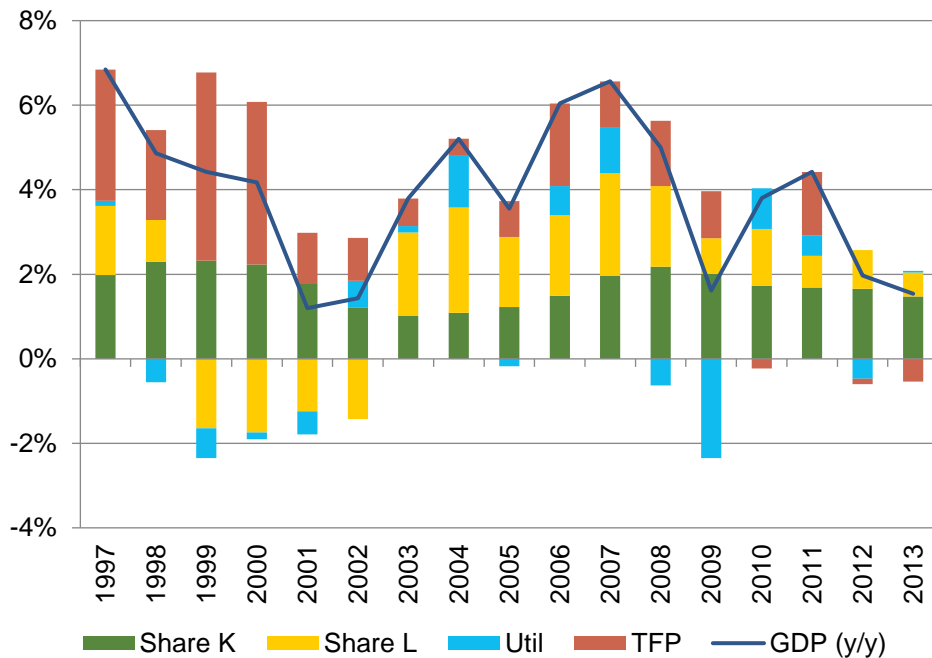


CEE's remarkable convergence since 1990s



Source: Penn World Table 10.0

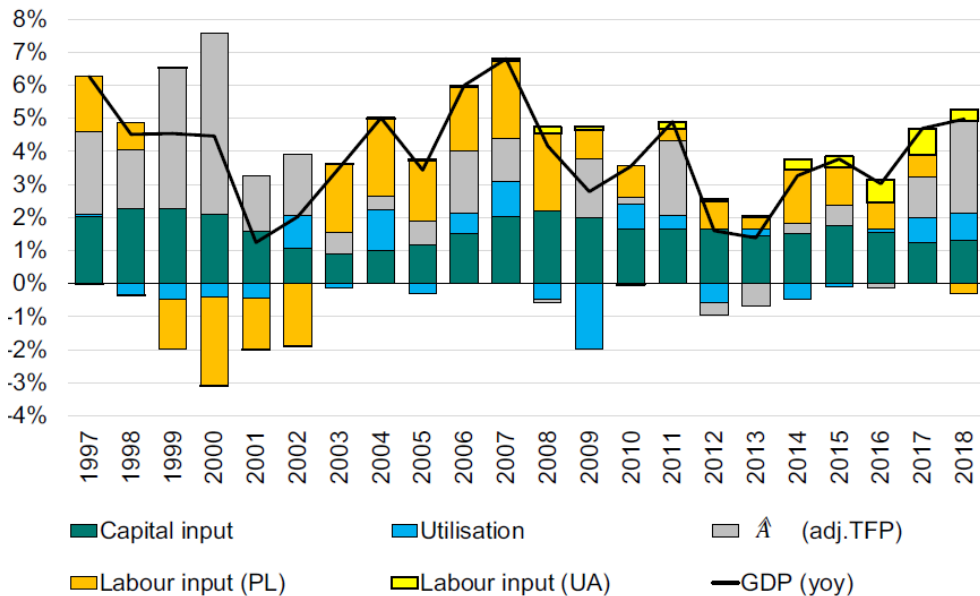
Key contributors to Poland's convergence



	1996-2013
Capital	41,5%
Capital composition	2,7%
Labour (hours)	-0,8%
Labour composition	20,9%
Utilisation	-0,3%
TFP	36,1%

Source: Gradzewicz, M., J. Growiec, M. Kolasa, Ł. Postek, P. Strzelecki (2018), "Poland's Uninterrupted Growth Performance: New Growth Accounting Evidence", *Post-Communist Economies* 30(2), pp. 238-272

Poland's convergence was boosted by workers from Ukraine



	1996-2013	1996-2018	2013-2018
Capital	44,1%	41,8%	35,3%
Labour (PL)	20,1%	17,9%	13,9%
Labour (UA)	~0%	3,8%	13,3%
Utilisation	-0,3%	1,5%	9,9%
TFP	36,1%	35,1%	27,6%

Source: Strzelecki, P., J. Growiec, R. Wyszynski (2022), "The Contribution of Immigration from Ukraine to Economic Growth in Poland", *Review of World Economics* 158(2), pp. 365-399

Secular trends and persistent shocks

- **Shifting demographics – aging vs. immigration**
 - ~0.9-1.1 million immigrant workers from Ukraine arrived in Poland until 2018
 - In 2022, additional ~1.0-1.3 million Ukrainian refugees (as of 09.2022)
 - Immigration from other sources also picked up recently
- **Digitalisation and automation of production**
 - ~30% of jobs are susceptible to automation in the next 20 years
 - Particularly routine jobs, particularly in manufacturing
 - Technology diffusion is accelerating, but innovation is lagging behind in CEE
- **Long shadows of macro shocks**
 - Global Financial Crisis turned out helpful for CEE convergence
 - Covid-19? Russian aggression on Ukraine (i.a., energy)?